

CATAWBA COUNTY

FARM & FOOD SUSTAINABILITY PLAN



April 2013

Acknowledgments

Catawba County Board of Commissioners

Kitty W. Barnes, Chair

Barbara G. Beatty, Vice-Chair

Dan A. Hunsucker

C. Randall Isenhower

Lynn Mull Lail

Working Committee

Ken Arrowood, AAB member*

Nathan Huret, Economic Development Commission

Barbara Beatty, Commissioner

Tom Kenney, Foothills Conservancy

John Brzorad, Lenoir Rhyne Reese Institute

Al King, Planning Board liaison

Mike Burris, Merchant Distributors Incorporated

Julie Lehmann, Conover Farmer's Market

Jeff Carpenter, Cooperative Extension

Dave McCart, AAB Vice-Chair

Joe Devine, AAB member

Fred Miller, retired Cooperative Extension Director

Jeff Elmore, AAB member

Danny Montgomery, Bunker Hill High School

Kristie Gilbert, Catawba County Schools

Jeremy Lee, AAB member

Martha Green, Catawba Valley Medical Center

Susan Proctor, AAB member

Clarence Hood, AAB Chair

Der Xiong, Cooperative Extension Hmong Program Coordinator

*AAB = Agricultural Advisory Board

Agricultural Economics Consultants

John Bonham, John Bonham Consulting and Quint Redmond, TSR Agristruction-Agriburbia

Written by:

Mary K. George, AICP

Assistant Planning Director, Catawba County Planning, Parks & Development Department

with contributions from the following:

Jeff Carpenter, Cooperative Extension

Amanda Kain, County Utilities & Engineering

Donna Cullum, Hickory Farmers Market

Julie Lehmann, Conover Farmers Market

Mary Furtado, County Managers Office

Amy McCauley, County Public Health

Clarence Hood, Agricultural Advisory Board

Erin Seiling's Local Foods Class at Lenoir Rhyne

Haley Kadish, County Managers Office

Shelley Stevens, Planning Department Intern

Kate Sturgeon, County GIS



This project received support from the North Carolina Agricultural Development and Farmland Preservation Trust Fund

THE JERSEY COW¹

Down here in Catawba County
We have the Jersey cow
She's the biggest paying thing we have
I'll tell you more right now

She lifts the mortgage from the farm
And feeds the babies too
She pays the household bills alright
Each day the whole year through

Then when we wish to put her to the test
Just feed her well
And treat her kind
And she will do the rest

Uncle Sam needs cows like these
In war as well as peace
And as we fight against the foe
Our strength will still increase

Three cheers for the Jersey cow
She's a treasure that we hold
The poor man's friend, the rich man's pride
She's worth her weight in gold.



This poem was written by Mrs. Grace Lutz Yount, daughter of Henry P. and Sarah Lutz in the 1930's. She wrote it in memory of her father and other Lutz dairymen that had passed on, and in honor of the Lutz dairies in Catawba County.



Table of Contents

Executive Summary.....	9
Introduction	11
Catawba County Profile	15
Overview	15
Population.....	15
Infrastructure	16
Natural Resources.....	16
Land Cover	20
Land Use.....	21
State of Agriculture in Catawba County.....	25
Historical Overview	25
Agricultural Statistics	27
Farms and Farmland	27
Economic Impact.....	29
Farm Characteristics	34
Forestry	36
Present Use	37
Per Capita Consumption Needs for County	37
Agribusinesses.....	39
Century Farms.....	39
Current Agricultural-Related Initiatives.....	40
Public-Based Initiatives	40
Private-Based Initiatives	50
Land Use Planning.....	55
Small Area Plans.....	55
Unified Development Ordinance	56
Plan Methodology.....	63
Key Issues.....	67
Plan Recommendations	71
Policy/Regulation Recommendations.....	71



Strategy #1:	71
Strategy #2	72
Strategy #3	74
Strategy #4	75
Strategy #5	76
Program Recommendations	78
Strategy #6	78
Strategy #7	79
Strategy #8	80
Strategy #9	82
Strategy #10	82
Strategy #11	85
Strategy #12	85
Strategy #13	86
Strategy #14	87
Projects Recommendations	88
Strategy #15	88
Plan Implementation	91
Implementation Partners.....	91
Implementation Reporting	99
Review/Update	99
Funding Sources	99
Appendices.....	101
Appendix A: Community Input Meetings – July 2012.....	103
Appendix B: Community Review Meetings – March 2013	121
Appendix C: Feasibility Assessment of a Shared-Use Agricultural Processing Facility in Catawba County, NC.....	125
Appendix D: Feasibility Assessment of a Farm Incubator in Catawba County, NC.....	139
Appendix E: Farmland Protection & Farm Viability Toolbox.....	151
National Protection Programs	151
Conservation Reserve Program.....	151
Conservation Stewardship Program	151



Debt for Nature.....	151
Environmental Quality Incentives Program	152
Farm and Ranch Land Protection Program	152
Forest Land Enhancement Program	152
USDA–Agricultural Marketing Service	152
USDA – Farm Services Agency.....	153
RAFI-USA (Rural Advancement Foundation International).....	153
Farm Credit System	153
State Protection Programs.....	153
Right to Farm Law (Nuisance Suit Protection)	153
Voluntary Agricultural Districts.....	154
Enhanced Voluntary Agricultural Districts	154
NC Agricultural Development and Farmland Preservation Trust Fund	154
Agricultural Cost Share Program.....	155
Southern SARE (Sustainable Agricultural Research and Education)	155
NCAGR–Cooperative Grading Service	155
Golden LEAF Foundation.....	155
Local Funding Opportunities	155
Present Use Value Rollback Taxes.....	155
Tax Incentives.....	155
Agricultural Conservation Easements.....	156
Present Use Value Program	156
Farm Viability	156
Agricultural Economic Development	156
Local Foods.....	157
Farmers Markets and Pick-your-own.....	157
Community Supported Agriculture	158
Farm to Institution	158
Agri-tourism	158
End Notes.....	161



Tables

Table 1. Leading Production Activities, 2007	30
Table 2. Net Cash Farm Income, 2007	33
Table 3. Economic Value Added from Agribusiness, 2008.....	34
Table 4. Farm Typology, 2007	35
Table 5. Key Timber Figures	37
Table 6. Economic Value Added from Forestry, 2008.....	37
Table 7. VAD Program Statistics. 2012.....	41
Table 8. Implementation Matrix	93

Figures

Figure 1. Farmland by Land Use (acres), 2007	27
Figure 2. Distribution of Farms and Farmland by Farm Size, 2007	28
Figure 3. Farms and Farmland by Land Use, 1978-2007	29
Figure 4. Sales of Agricultural Products, 2007	31
Figure 5. Sales of Agricultural Products, 2007-2010	31
Figure 6. Leading Sales Products, 2010.....	32
Figure 7. Distribution of Farms and Sales by Sales Category, 2007	32
Figure 8. Age of Principal Farm Operators, 2007.....	36

Maps

Map 1: Major Roads and City Limits	17
Map 2: Geographic Features.....	18
Map 3: Flood Hazard Areas	19
Map 4: Prime Farmland and Soils of Statewide Importance	23
Map 5: Land Use.....	24
Map 6: Present Use Tax Value: Farm, Forest & Horticultural Land - 2013	38
Map 7: Voluntary Agricultural Districts.....	42
Map 8: Small Area Plan Boundaries	57
Map 9: Adopted Small Area Plans With Density & Future Land Use Recommendations.....	58
Map 10: Land Capability Classifications With Growth Corridors	59
Map 11: Official Zoning Map: General Zoning Map.....	62



Executive Summary

The main objective of Catawba County's Farm & Food Sustainability Plan is to enhance agriculture with a focus on agricultural economic development to recruit younger farmers and provide tools for farm transitioning in the County. The Plan also includes efforts to ensure local food sustainability by developing a robust "Farm-to-Fork" initiative, where local food producers link up with local food distributors and restaurants to ensure the availability of fresh, locally-produced food within Catawba County.

A Working Committee of 20 community representatives, endorsed by the Board of Commissioners, developed the Farm & Food Sustainability Plan's recommendations using community input. Committee members included representatives who brought different perspectives on all phases of the agricultural "life cycle" (production, processing, distribution, preparation, and waste recovery) as well as education/outreach, medical, and food access/hunger relief, and policy.

Community input meetings were held in July 2012 at three County high schools with over 100 people in attendance providing more than 800 ideas on encouraging trends, limitations and opportunities to explore to enhance agriculture and promote local foods. Over the next 7 months, the Committee met to prioritize feedback received from the meetings; and develop guiding principles, strategies and specific action items. The Committee also identified over 20 community organizations that can either lead or serve in a supporting role in implementing the individual action items. Finally, the Committee prioritized each of the action items into short (0-2 years), mid (2-5 years) and long-range (5+ years) timeframes for implementation.

The Farm & Food Sustainability Plan's 66 action items fall into one or more of the following five broad categories:

Education

Programs and activities aimed at engaging and increasing the knowledge and skills of farmers, consumers, and youth through outreach activities such as demonstration events, school gardens and distance learning opportunities for high school students.

Farmland Preservation/Farm Transition

Programs and activities aimed at maintaining existing farmland, supporting current farmers, and ensuring the recruitment of the next generation of farmers through activities like estate planning workshops, mentoring/internship programs, and advocating for maintenance/establishment of favorable policies related to agriculture.



Advancing Traditional Agriculture

Programs and activities aimed at equipping farmers with the resources necessary to support the continued viability of our established agricultural enterprises such as dairy, cattle, poultry, and row crops.

Alternative Agricultural Enterprises

Programs and activities aimed at supporting the most promising alternative crops and enterprises such as small-scale fruit and vegetable production, agri-tourism, and the exploration of value-added processing facilities.

Local Foods

Program and activities aimed at developing a reliable supply of locally produced fruits, vegetables, and meats, developing systematic connections between producers and local institutions like schools, hospitals and restaurants, and helping citizens make the connection between local foods and nutrition.

Implementation responsibility for these various action items will be shared among the broad range of community organizations identified in the Plan. The implementing partners will meet annually (at a minimum) to report on the status of implementation efforts and to ensure the necessary coordination between the various organizations.

Through implementation of these action items, and building upon an existing foundation of support for agriculture and agri-tourism related industries throughout Catawba County, the community will better position itself to ensure a thriving, vibrant, and expanded local food economy and will reap the benefits of maintaining an integral element of Catawba County's agricultural heritage.



Introduction

Catawba County's Farm & Food Sustainability Plan is the next step in farmland protection efforts, building upon the County's successful Voluntary Agricultural District (VAD) Program. The VAD program was adopted to encourage the preservation of farmland in the County; whereby, the farmer executes a voluntary conservation agreement to continue farming the land for at least 10 years. Currently, there are over 8,700 acres in the County's VAD program, which began in mid-2009. This represents approximately 12% of the agricultural land in the County. After several years into the VAD program, the County's Agricultural Advisory Board (a Board of Commissioners appointed group who has an interest in farming-related issues) identified the need to develop a farmland protection plan. The Advisory Board realized that with agriculture providing over \$52 million in economic benefits to the County, it should be actively promoted and expanded upon especially during this time of economic downturn. In order to address all aspects of farming and to incorporate a market for local foods, the County decided to broaden the focus of the Plan and titled the project "Catawba County Farm & Food Sustainability Plan."



As with other Farmland Protection Plans in the State, Catawba County's Plan includes the following components:

1. A list and description of existing agricultural activity in the County
2. A list of existing challenges to continued family farming in the County
3. A list of opportunities for maintaining or enhancing small, family-owned farms and the local agricultural economy
4. A description of how the County plans to maintain a viable agricultural community and address farm sustainability tools, such as agricultural economic development, including farm diversification and marketing assistance; other kinds of agricultural technical assistance, such as farm infrastructure financing, farmland purchasing, linking with younger farmers and estate planning, the desirability and feasibility of donating agricultural conservation easements, and entering into voluntary agricultural districts
5. A schedule for implementing the plan and an identification of possible funding sources for the long-term support of the plan

The main objective of the Plan is to sustain agricultural land in Catawba County with a focus on agricultural economic development to recruit younger farmers and provide tools for farm transitioning in the County. Another focus of the Plan involves efforts to ensure local food sustainability by developing a robust "Farm-to-Fork" initiative, where local food producers link up with local food distributors and restaurants to ensure the availability of fresh, locally-produced food within Catawba County.



The Plan was developed to be a true “community” effort where various County departments, agriculture-support organizations, farmers, land trusts, schools, institutions, the Chamber of Commerce, etc. will be engaged in implementing the Plan’s 66 action items. The action items will not be realized in a short-time frame, but rather this is a long-range Plan which may take over five years to implement. It was clear in developing the Plan’s action items that some projects would have to occur before others; while others may not have as high a priority as some. The implementation of this Plan’s action items is defined in terms of short (0-2 years), mid (2-5 years) and long-range (5+ years) timeframes.

All of Catawba County’s citizens can benefit from a healthy local agricultural economy. Following are the reasons why it is important to preserve and protect the County’s farmland:

- 1) **Cultural heritage** – agriculture is a part of Catawba County’s heritage. This is evident in the County’s Seal. The County Seal was designed by Pearl (Mrs. Loy) Setzer Deal of Hickory, and officially adopted by the Board of Commissioners on September 7, 1925. The Shield on the Seal is divided into four parts, representing the national colors of red, white, and blue, with the fourth color of royal purple representing the blending of the national red and blue into royal purple. The four emblems are the cross in the field of red to represent religion, which was established with the earliest settlers; the torch in the field of white representing education, which was established along with the church in the earliest days; the cow in the royal purple, representing the farming upon which the County has always depended and the dairying which made the County famous far and wide; and the wheel in the field of blue to represent the manufacturing here in the County.
- 2) **Economy** – As noted above, agriculture is a \$52 million economic business in the County, based upon updated 2011 data. Cash receipts from livestock, dairy and poultry account for \$34 million of this figure, with crops providing \$18 million in receipts. While these figures account for the direct economic benefits of agriculture in the County, there are value-added benefits from related agri-businesses. According to NC State University, the total economic value added income from agriculture/food industries in the County totals over \$361,000,000. This includes sales of crop, turf, livestock and crops from farms; manufacturing of food products; and wholesaling/retailing in food stores and restaurants. In 2000, employment figures in agriculture and agribusinesses in the County were 24,741, or 21% of the County’s total employment.² This employment number includes those employed in support services to farmers, including farm laborers, accountants, feed & fertilizer businesses, veterinarians and agricultural equipment suppliers in addition to employees of value-added agribusinesses.
- 3) **Loss of natural resource** - According to the American Farmland Trust, the United States is losing two acres of farmland every minute to new development. From 1992 to 1997, America converted more than 6 million acres of agricultural land to developed uses. This is roughly an



area the size of Maryland. In North Carolina alone, more than 6,000 farms and more than 300,000 acres of farmland were lost to conversion since 2003. These figures are mirrored in Catawba County where from 2002-2007, 6,600 acres of farmland was lost and the average size of farms decreased by 12 acres. It is crucial to preserve and protect farmland not only for the economic benefits it provides to the County but farmland also has many environmental benefits. Farmland serves to protect integral open space and critical wildlife habits. Also, the retention of natural surfaces provides groundwater recharge and flood control. As indicated in all of the County's seven Small Area Plans, the preservation of farmland was important to protect the rural and scenic character of the County. For these reasons alone, it is important to preserve the County's farmland natural resource.

- 4) **Local foods/public health** – Locally produced food is less costly than food being shipped into the County's stores from the west coast and other countries. In general, the average distance that food travels from farm to plate is 1,500 miles. By purchasing fresh, locally-raised fruits and vegetables, reduced costs and environmental benefits can be realized. In addition to the monetary gains, fresh local produce has benefits to one's health. Locally raised produce is not only fresher, but tastes better and has more nutritional value. By promoting a diet consisting of fresh local produce, it could help reduce the County's obesity rate of 26.4%.
- 5) **Cost of services** – For every dollar a farmer pays in property taxes, they generally use only 34 cents in public services, according to the American Farmland Trust. Residential property owners use approximately \$1.15 worth of services for every dollar of property taxes paid. Single-family residential development demands services that are more costly than open farmland, such as schools, roads, utilities, police and fire protection services. The general conclusion is that there is a net gain of revenue for the County's tax base when farmland is preserved. One of the action items in this Plan is to complete a Cost of Services study specifically for Catawba County to show the direct economic benefits of farmland to the County.

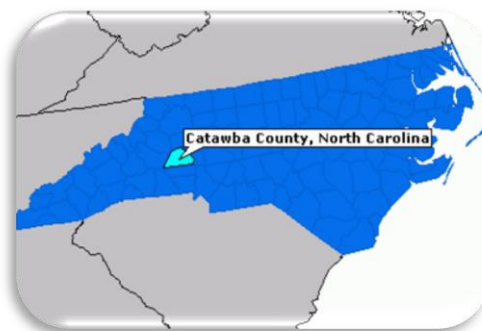




Catawba County Profile

Overview

Catawba County, North Carolina, is located in the western part of the State in the foothills region of the Blue Ridge Mountains. The County covers approximately 400 square miles. The northern and eastern borders of the County consist of dammed lakes along the Catawba River. They include Lakes Hickory, Lookout and Norman. Lake Hickory covers 4,100 acres and 105 miles of shoreline, Lake Lookout Shoals covers 1,270 acres and 39.1 miles of shoreline, and Lake Norman covers 32,510 acres and 520 miles of shoreline. Lake Norman is the largest manmade lake in North Carolina. The elevation in the County ranges from 705 to 1780 feet, averaging 995 feet. The highest peak is Bakers Mountain in the western part of the County. The three lakes and its location in the foothills of the Blue Ridge Mountains have a strong influence on the County's climate. The average year round temperature is 68.8 Fahrenheit.



The early Catawbans were either refugees or descendants of refugees from European political strife. Most were German and Scotch-Irish, who initially settled in Pennsylvania and migrated to the south when crowding and under-employment evolved. Many, after being attracted by the fertile ground of the Valley of Virginia, moved into the Catawba County area in the 1740's after troubles developed in Virginia. The concern over future crowding, plus the growing danger of Indian attacks were the primary reasons for their move. The County was established on December 12, 1842 and, on January 8, 1845, Newton was selected as the County seat. It was one of the first counties of the 100 counties in North Carolina to adopt the county manager form of government (March 1, 1937).³

Catawba County developed its economy into a traditional manufacturing-base consisting of furniture, textiles, and telecommunications. However, due to the economic downturn, there has been a loss of many of these traditional industries. The County's Economic Development Corporation (EDC) is now directing its efforts on identifying new sectors in manufacturing such as biomedical, pharmaceutical, technology and building products. It also is expanding to non-manufacturing sectors, such as retirement and retail development. As noted in this Plan, it is recommended that the EDC also include efforts on the recruitment of agri-businesses and support of the \$52 million agricultural economy in the County.

Population

The 2012 estimated population of Catawba County is 154,339, which includes the inhabitants of its eight municipalities. The cities and towns in Catawba County are Brookford, Catawba, Claremont, Conover, Hickory, Long View, Maiden, and Newton (see map 1). The population density of the County is approximately 387 persons per square mile. The median household income of the 67,922 households in the County is \$43,773. Approximately 78% of the County's residents are white, 9% are Hispanic, 9% are black, and 4% are Asian. The median age of its residents is 39 years old.



Catawba County is the central county of North Carolina's 8th largest Metropolitan Statistical Area (MSA), the Hickory-Lenoir-Morganton Metro Area. Catawba County has been recognized as being one of the top ten areas in America to raise a family with the 2011 cost of living index being 83.3, which is below the U.S. average of 100.

Infrastructure

Catawba County is blessed with an excellent regional transportation network (see Map 1). Interstate 40 bisects Catawba County, providing an east-west route across the State of North Carolina. The County also has three highways that connect it to the Charlotte region. US Hwy. 321, a four-lane divided highway, connects the County to I-85 in Gastonia. Highway 16 has been partially constructed as a 4-lane divided highway that connects directly to downtown Charlotte. The State's Transportation Improvement Program (TIP) provides funding to begin construction on the final segment of the 4-lane section in 2015, which when completed will bring the highway to the central part of the County in Newton. Hwy. 150 in the southeast corner of the County connects the area to I-77, which is another direct route to Charlotte. The State TIP funds the design and right-of-way acquisition for the widening of the highway beginning in 2017.

The City of Hickory is a regional provider for public water and sewer in the County, while Newton, Maiden and Conover provide water and sewer service outside of their jurisdictions. These jurisdictions partner with the County in a revenue sharing program to extend water and sewer in the County. Under this program, the County pays for the construction of the water/sewer lines, with the municipalities providing maintenance of the lines. Revenue is then shared between the municipality and the County. Future water and sewer projects are identified using the County's Utility Prioritization Tool which ranks projects using specific criteria. The extension of public water and sewer service into the County can exert growth pressures which may cause the conversion of farmland to developed land. This was one of the key issues identified during the public input process in the development of this Plan.

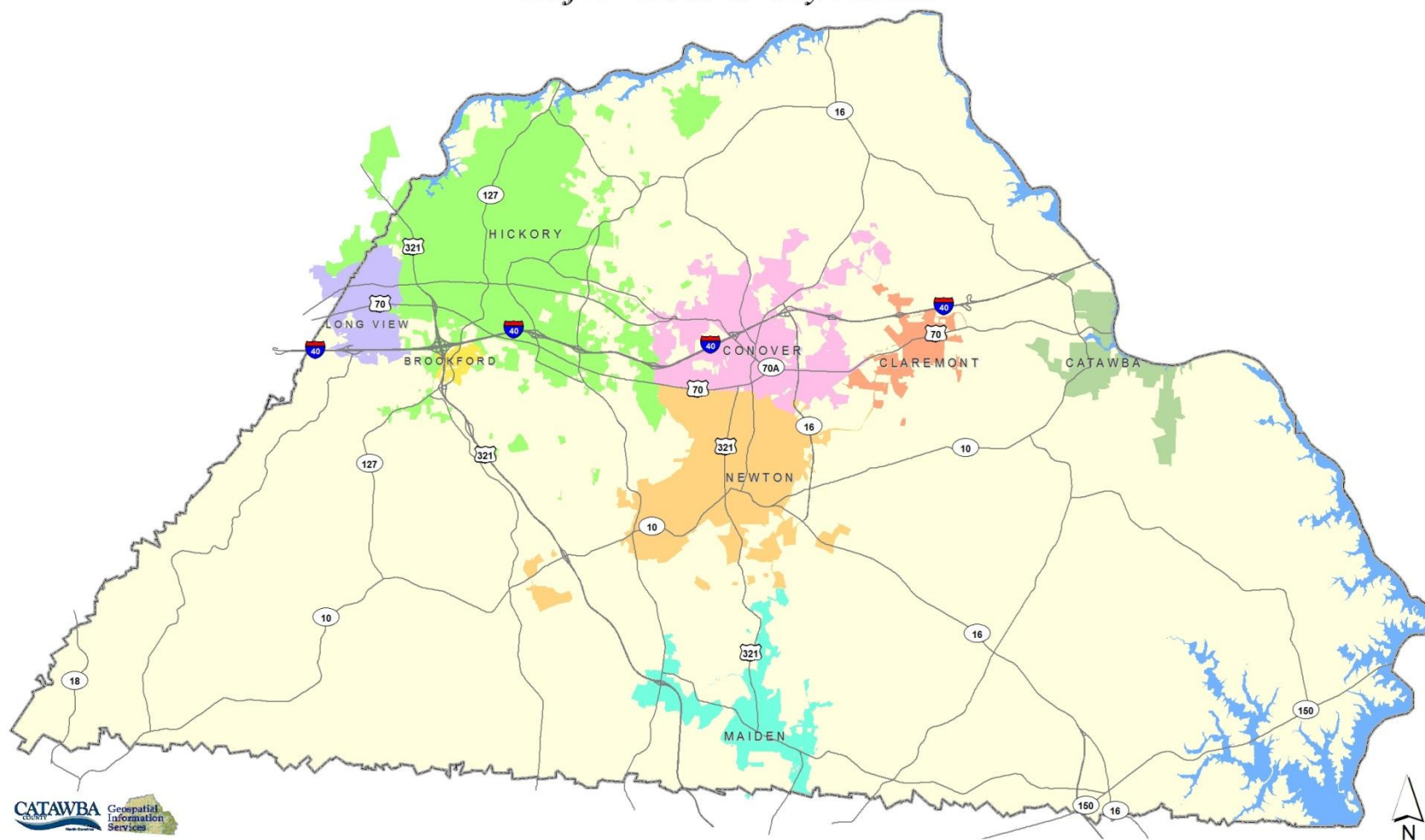
There are 43 public schools in the County with just over 24,000 students. It has two colleges: Lenoir-Rhyne College, a liberal arts institution founded in 1891 and Catawba Valley Community College (CVCC), a member of the NC Community College System. CVCC offers a variety of educational opportunities including one- and two-year vocational programs, a two-year college transfer program and continuing education programs.

Natural Resources

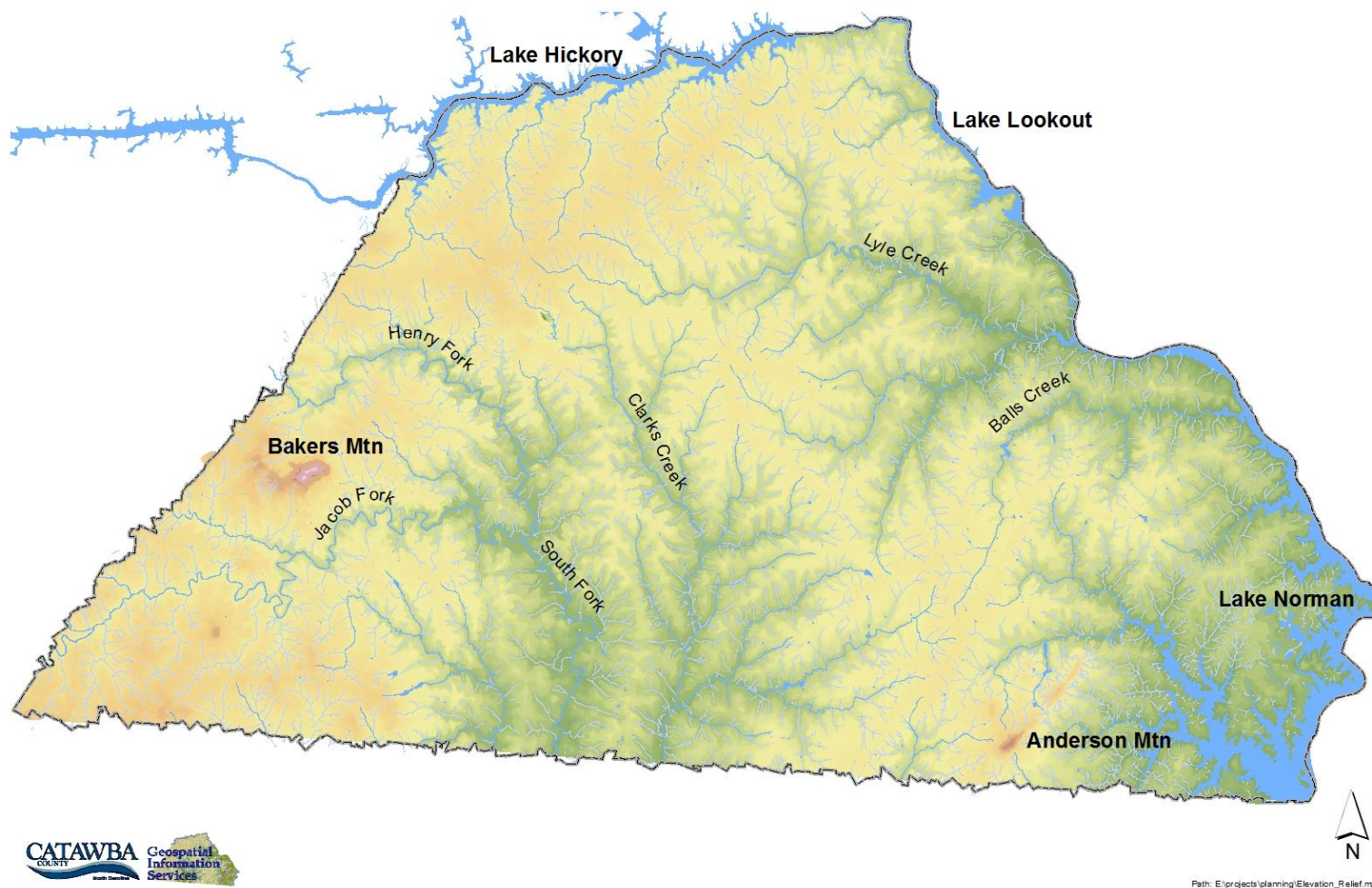
Catawba County lies entirely within the Catawba River basin. The main river networks in the County are: the Catawba River on the northern and eastern borders; Henry and Jacobs Fork Rivers which flow out of the South Mountains in Burke County; Lyle Creek flowing from Hickory to Lake Norman, Clarks Creek from Hickory to Lincoln County and Balls Creek in the central portion of the County. These two rivers merge together and form the South Fork Catawba River which flows into Lincoln County to the south. (see Map 2). Approximately 8.7 % of the County's land area lies within a designated 100-year flood zone (see Map 3).



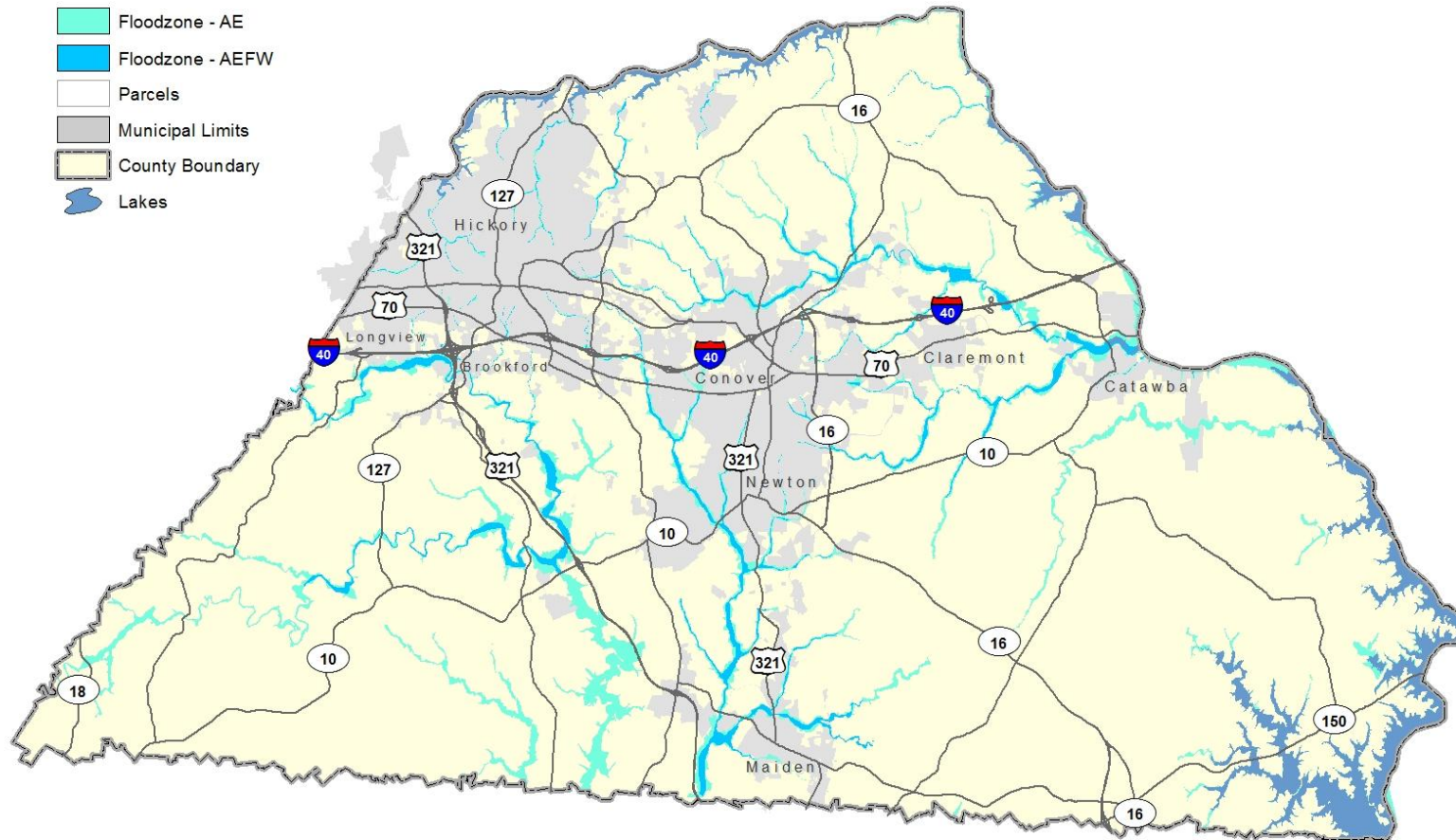
Catawba County Major Roads & City Limits



Catawba County *Geographic Features*



Catawba County *Flood Hazard Areas*



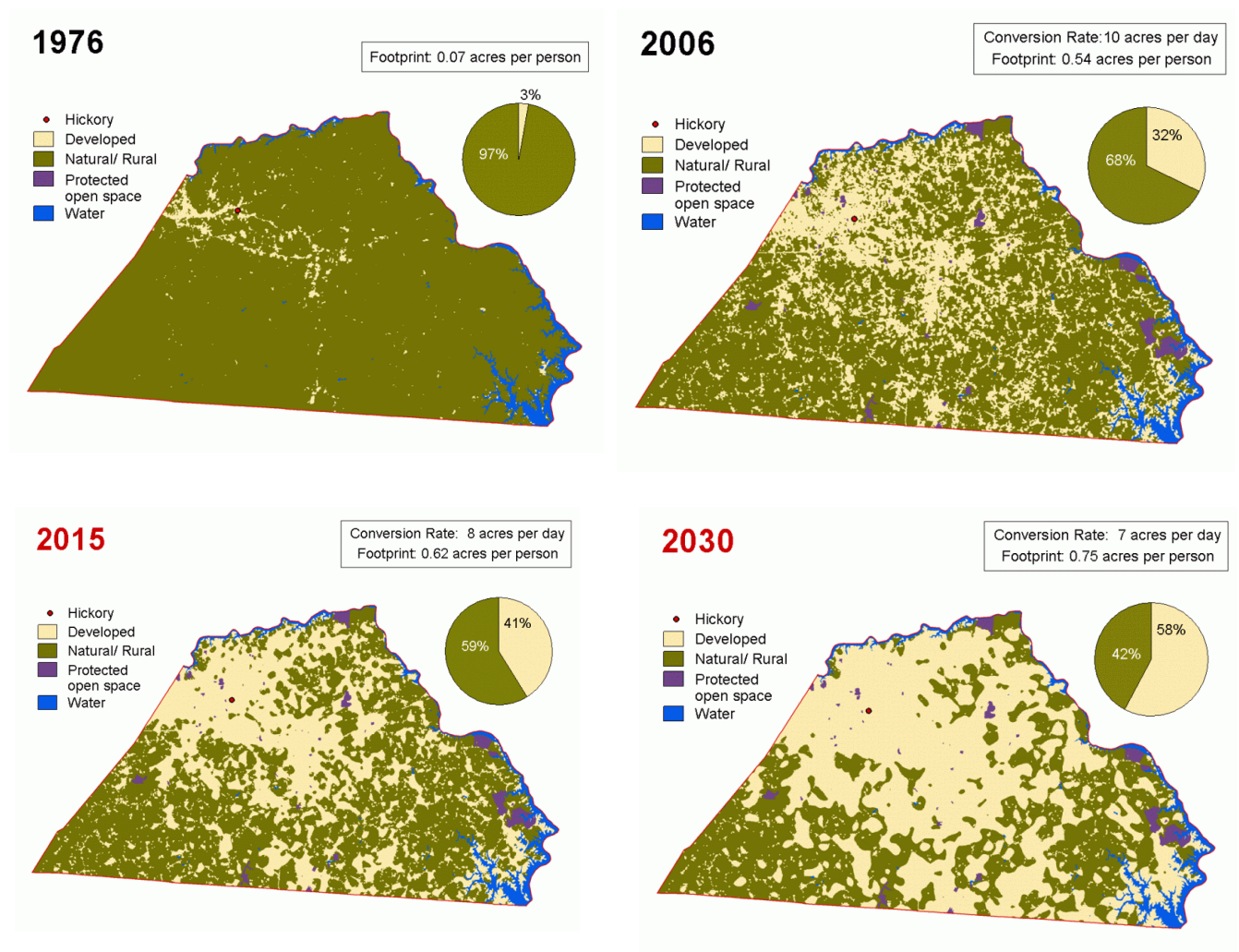
Geologically, the County lies within the Inner Piedmont Belt consisting of metamorphic and intrusive rocks. According to the USDA Soil Survey of Catawba County, the soils are dominantly acid and strongly leached. Most have low base saturation; and are low in natural fertility and organic-matter with the exception of Wilkes and Enon soils. Farmers typically must fertilize and lime the soils for optimum yield.⁴ Despite this statement, there are many soils types that with proper soil amendments can become prime farmland. Map 4 shows that the County is blessed with an abundance of prime farmland and soils of statewide importance. Prime farmland is defined by the USDA – Natural Resources Conservation Service based upon specific soil characteristics.

Land Cover

Catawba County has seen an urbanizing trend since the 1970's. During each of the decennial census periods Catawba County saw a growth rate approaching 10% with an explosive growth rate of 19.7% occurring during the period of 1990-2000. This growth impacted the development of the County; whereby, subdivisions began to be constructed outside of the cities which consumed open space and agricultural land. According to a study titled "Losing Our Natural Heritage: North Carolina's Disappearing Open Spaces," Catawba County lost 12-15% of its total crop and forest land for the period of 1982-2002. This loss of prime land was due to the 49% increase in developed land area for the same period of time.⁵ (note: not all developed land was from the conversion of farmland). As a whole, the Unifour area (Catawba, Alexander, Caldwell and Burke counties) saw 34% of its cropland and 9% of its forest land disappear, with a total loss of 50,000 acres. The study also projected that the County would lose another 15-25% of its total forest and cropland for the period of 2002 – 2022; however, with the economic downturn this loss may not be totally realized.

Another study conducted by UNC Charlotte, indicates a similar trend in the urbanization of the County. Following are maps of the County for several periods of time showing the progression of developed land in comparison to natural/rural land.⁶ The study indicated that the County would see an equal split between developed land and natural/rural land sometime between the years 2015-2020.





Land Use

Land use in Catawba County is broken into five categories, as shown on Map 5. The categories are: residential, commercial, manufacturing, office, and open space. These land use categories are defined as follows:

- Residential – this category includes all single-family, duplex, and multi-family housing. The greatest density of residential land use, unsurprisingly, is in the corporate limits of the County’s eight municipalities.
- Commercial – this category includes retail trade and business services. Commercial development has occurred along the major corridors, such as Hwy. 70, Hwy. 321 Business, Hwy. 10 and Hwy. 150. There are several commercial nodes in the County located at major crossroads, which serve the rural communities. This is where some of the agricultural-support businesses are located.

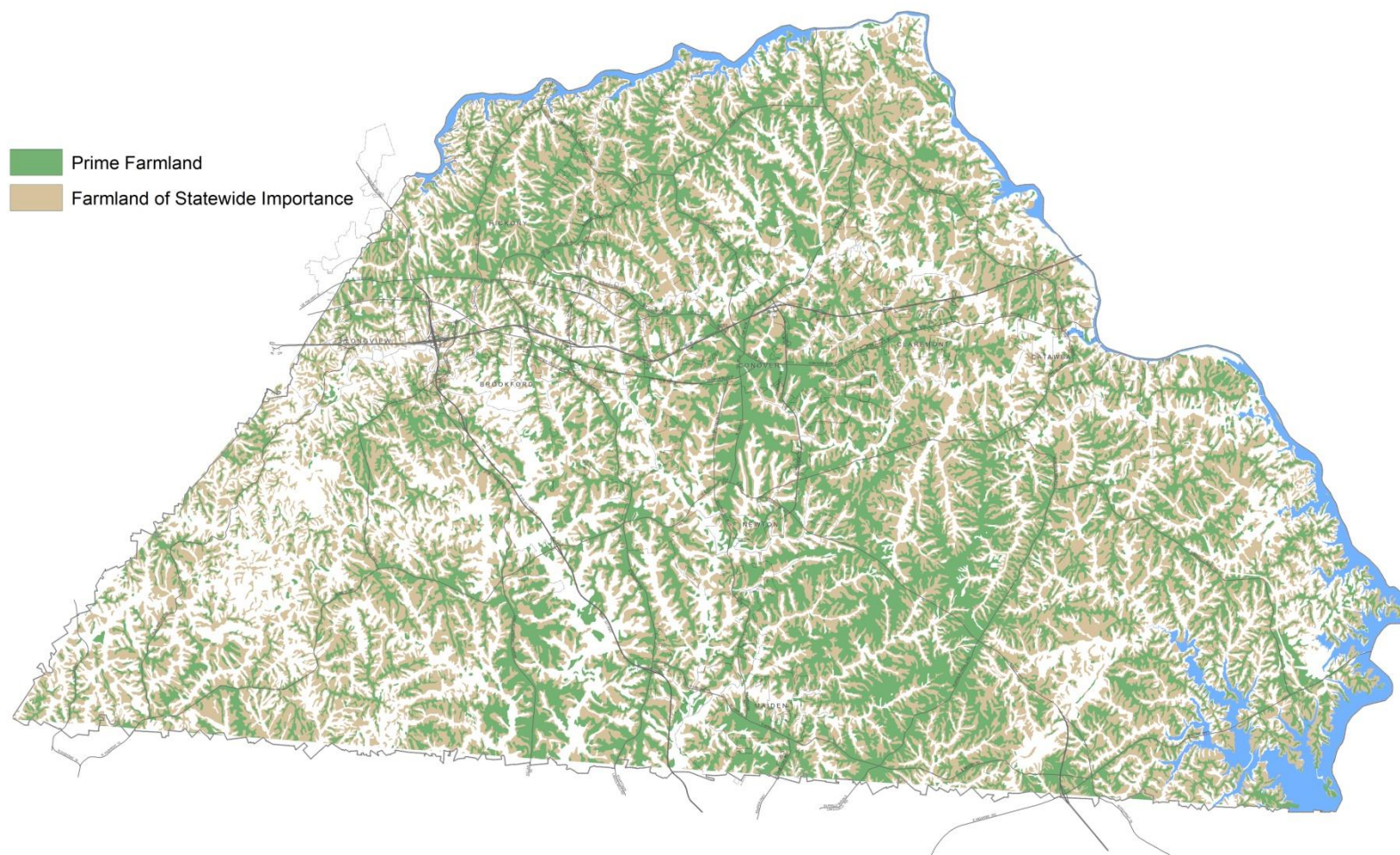


- Manufacturing – this category includes all processing manufacturing, assembly, warehousing and associated industrial offices. Similar to the commercial land use category, manufacturing is located along the major highway corridors in the County.
- Office – this category includes offices for personal services along with institutional uses, such as churches, schools and County support services. These uses are found scattered throughout the County.
- Open space – this category includes all farmland, forestland and open space in the County. This category comprises the largest percentage of land area within the County; however, this can be misleading since not all land in this category is being actively used for agricultural production.

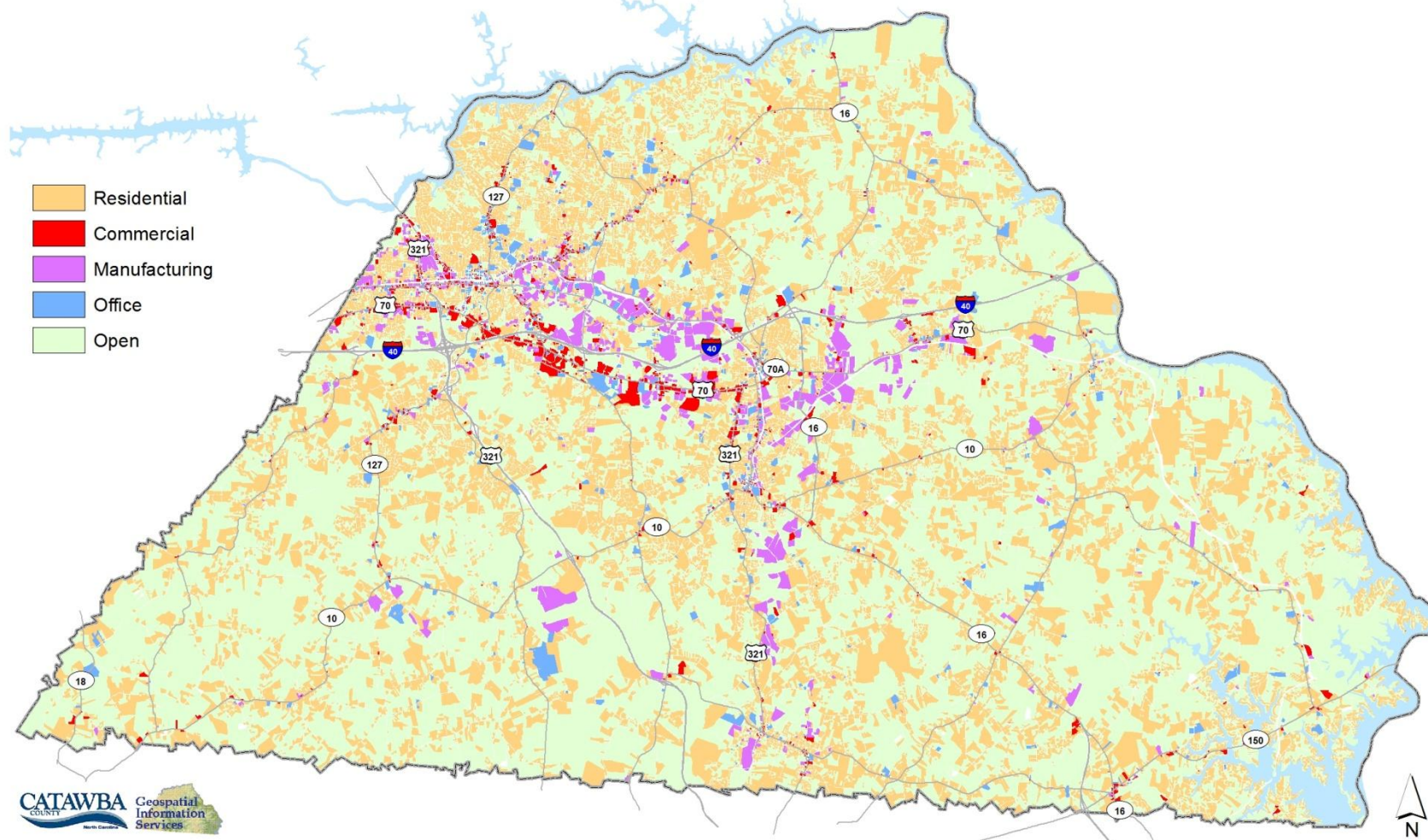


Catawba County

Prime Farmland and Soils of Statewide Importance



Catawba County *Land Use*



CATAWBA COUNTY
Geospatial
Information
Services



State of Agriculture in Catawba County

Historical Overview

Farming was a way of life in early Catawba County. The importance of farming in the County can be seen on the Catawba County seal, which includes emblems representing farming, education, manufacturing, and freedom of religion. The German and Scottish pioneers that settled the area were accustomed to farm life and were attracted due to the elevation, combined with its proximity to the Appalachians and the river, which produced favorable conditions for the growth of many crops. As a result, agriculture was the prevailing industry throughout much of Catawba County's history. The County's early farmers were subsistence farmers who grew what they and their livestock consumed. Corn was the main vegetable grown due the favorable climate and soil conditions. Peach and apple



orchards could also be found across the countryside. Farming followed the seasons of the year. In Gary Freeze's "The Catawbans," he documented the annual farming cycle for Rebecca Woodring in 1872. "She 'made my garden the Thursday after the third Sunday in March,' as she recorded the passing of time. She and her husband planted Irish potatoes and 'bedded sweet potatoes' the Tuesday after the fourth Sunday. They planted corn the second week of April.

Cabbage was set out the second week of May. The fourth week of May was devoted to hoeing in the garden. Soon afterward she picked cherries. She set out yams in June. Later that month she gathered wild blackberries and dried them. The wheat thrashers came the third week of July. The Woodrings made hay and pulled fodder in September, and they shucked corn during October. Animals were slaughtered in winter."⁷

At the start of the Civil War, just one third of Catawba County was cleared for cultivation, primarily for wheat, cotton and tobacco. However, construction of the first railroad across the Catawba River in 1860 encouraged local farmers to grow more for the market. By 1912, one half of the land in the County had been cleared and that percentage remained into the 1990's. Cotton, corn, and wheat were historically the principal cash crops grown in Catawba County.

Catawba County is historically recognized for a special agricultural commodity – the Jersey cow. The history of the Jersey cow and its impacts in the County is documented in a book by William R. Lutz, Jr. "A Glimpse of Jersey Cattle History in North Carolina and More."⁸ In 1882, Adolphus L. Shuford, of Hickory, learned about the Jersey - a new breed of cow that was



being raised in the North which had the ability to produce superior dairy products economically. He bought a herd of thirteen Jerseys and proceeded to take them to the annual Livestock Show being held in the fall of 1882 at the Catawba County Courthouse Square in Newton. Interest was high in this new breed of dairy producing animal, with one cow being sold for \$120.00 (a very substantial sum in 1882). After this initial introduction of the Jersey cow into Catawba County, there was a great influx of the breed into the 1900's, such that the County rose to the front ranks of the dairy industry in North Carolina. This interested Professor J.A. Conover, a Dairy Specialist from the North Carolina Agricultural and Mechanical College in Raleigh. In 1908, Professor Conover held the State's first dairy school in Catawba County on a farm owned by Henry P. Lutz. The school taught better methods of dairy management and marketing of the product. It also had classes on milk production, butterfat testing, preservation and butter churning.

By 1910, Catawba County became known as the leading county in the State for family farms milking Jersey cows. With the high production levels from the cows, the farmers realized that they needed a way to combine their products for proper processing in order to create a viable market. This birthed the first "aggregation center" in the County, known as the Catawba Cooperative Creamery. Not only did the Creamery process and market dairy products, it also marketed farm produce. The Creamery, using the Catawba Gem trademark from the Lutz Dutch Dairy Farms, was inaugurated in Hickory in June 1911 to a crowd of 3,000 farmers. The Creamery was a huge success and was recognized in a local newspaper headline as "The Greatest Factor in Five Counties in Farm Development." Total sales in 1913 exceeded \$51,000, with local cows supplying almost 100,000 pounds of butter. The Creamery continued to operate through the late 1930's.



Another unique agricultural support system in the County was the Farm Life School in the Startown community. Details of the Startown Farm School have been documented in W.R. Lutz, Jr.'s "A Century



of Achievement: 1904-2004; Startown School Lights the Way in Progressive Farm Life Education."⁹ The concept of a Farm Life School arose from the need to educate rural children on methods to increase crop yields to financially support their large farm family. In 1914, it was decided to locate a Farm Life School in the Startown community because of its recognized prominence and diversification of farming in the County. The School consisted of a dormitory for boys and girls in addition to the existing high

school used for coursework study. One key to the Farm School was having a working farm, consisting of land, demonstration plots, livestock, crop production, etc. to provide hands-on experience for its students. With a substantial increase in enrollment in the first 10 years, it was necessary to build a new facility in 1924. The School was located on 21 acres, north of the present Startown Elementary School, between the Jenkins Funeral Home (previously Startown Baptist Church) and the Debora Bollinger Wentz/Jacqueline Bollinger Yoder property. The Farm Life School program ended in 1931 when funding was diverted to support other schools in the County.

The Startown School had another tie with agriculture, when in 1944 the old wood shop building at the high school was converted into a community cannery. The cannery was a great service to the community and people came far and wide to can their produce. Despite its success, the cannery closed its doors in 1986.

Agricultural Statistics

Farms and Farmland

According to the US Department of Agriculture's Census of Agriculture, farmland represented 28 percent of the County's land base in 2007, totaling 71,906 acres. Figure 1 illustrates the allocation of farmland in the County by land use type. Cropland was the predominant land type in the County, accounting for 51 percent of all farmland in 2007. Woodland and permanent pasture are the other two major land types, accounting for 20 percent and 24 percent of all farmland in 2007, respectively. The remaining uses of farmland include roads, buildings, ponds, and other uses not classified as pasture, cropland or woodland. Farmland is not always used according to its type: 7,968 acres of cropland and woodland were used as pasture or for grazing livestock in 2007. When measured by use, pasture accounted for 36 percent of all farmland in 2007.

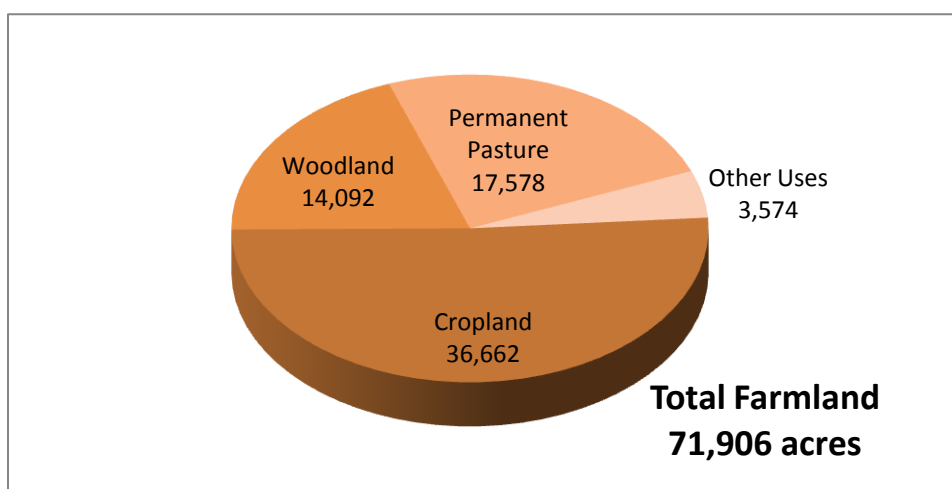


Figure 1. Farmland by Land Use (acres), 2007

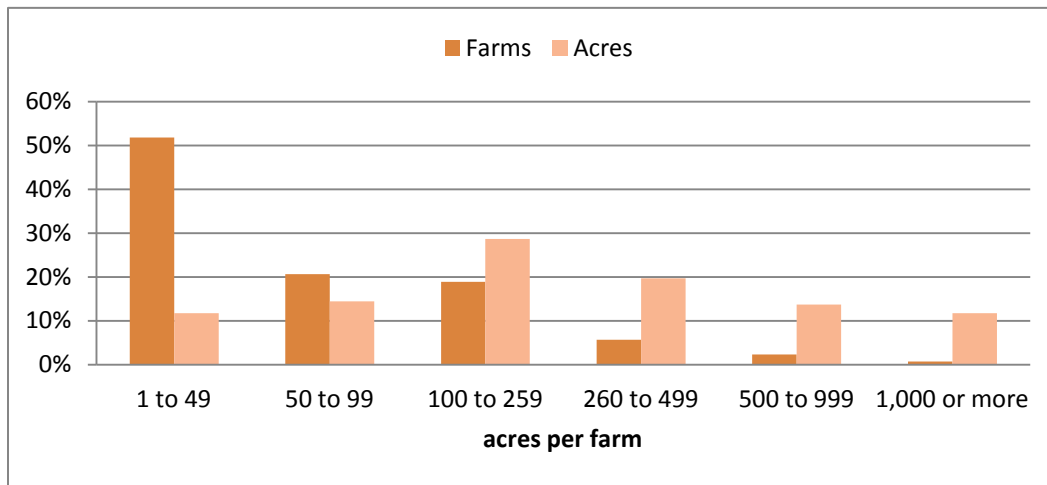


Figure 2. Distribution of Farms and Farmland by Farm Size, 2007

Figure 2 shows the distribution of the County’s farms and farmland in 2007 according to farm size. The smallest farms, those between 1 and 49 acres accounted for 52 percent of all farms and 12 percent of all farmland in the County, while the largest farms (1,000 acres or more) are one percent of all farms and account for 12 percent of all farmland. Twenty-seven percent of farms were between 100 and 999 acres, which accounted for 62 percent of all farmland in the County.

Figure 3 shows the number of farms and acres of farmland by type of land use for the Agricultural Census years 1978 to 2007. In 1978 there were 86,632 acres of land and 633 farms. Over the next 19 years the number of farms increased by 104 to 737 while farmland decreased by 14,726 acres to 71,906, changes of 16 percent and negative 17 percent, respectively. During that period cropland and woodland decreased by 16,509 acres and 10,170 acres, respectively, while permanent pasture increased by 14,535 acres. In the period from 1978 to 1992, farmland decreased by 23,778 acres, although permanent pastures increased 3,439 acres. Between 1992 and 2002, farmland in the County increased by 15,662 acres; however, after rising 7,917 acres between 1992 and 1997, cropland had declined 6,844 acres by 2002. The number of farms declined by 162 between 1982 and 1992 before increasing by 230 between 1992 and 2007.

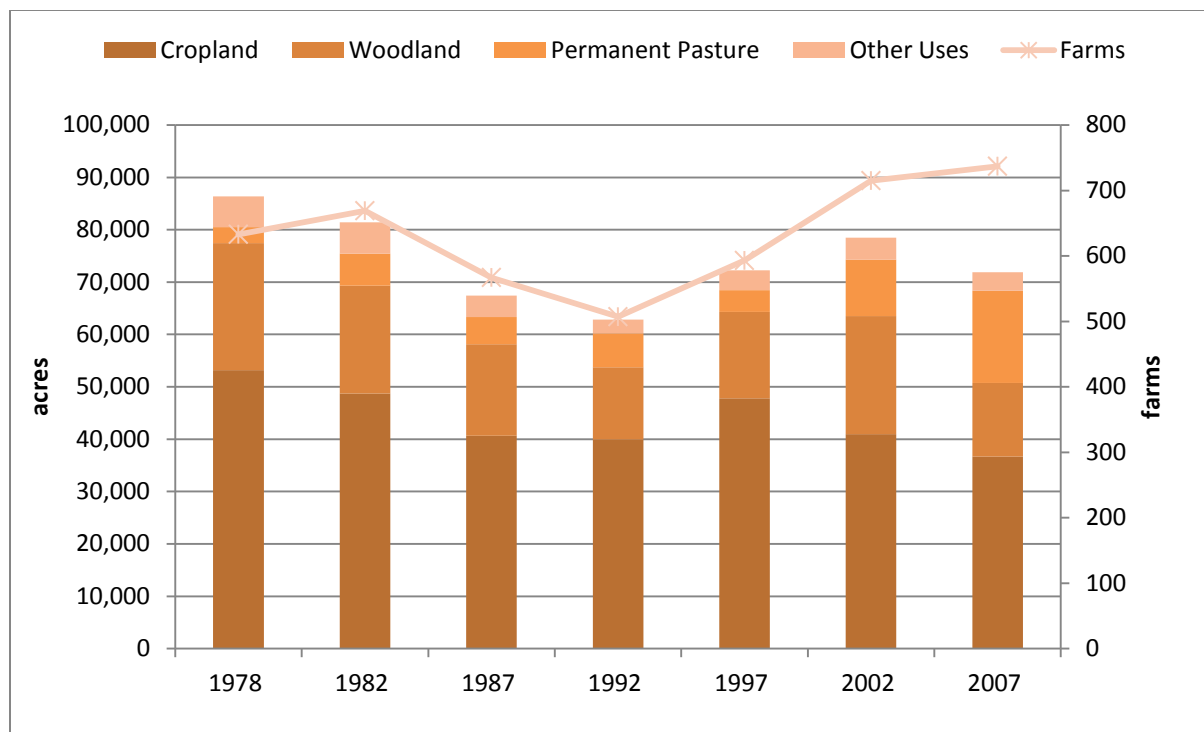


Figure 3. Farms and Farmland by Land Use, 1978-2007

Economic Impact

Table 1 displays the leading farm activities in the County in 2007 as reported in the Census of Agriculture. The top five crop activities were ranked by acres in production. The most common activity was forage production—hay, haylage, grass silage, and greenchop—which was grown on 367 farms and 13,477 acres, representing 37 percent of all cropland. Twenty-five percent of all cropland was used for the production of soybeans, which were grown on 54 farms and 9,049 acres. Wheat, corn for grain, and corn for silage round out the top five crop activities. The top five livestock and animal activities were ranked by number of farms. Cattle was the most common livestock activity in the County with 13,356 beef and dairy cows, heifers, calves, steers, and bulls raised on 342 farms. Cattle operations and the 250 farms raising 1,837 horses explain why more than half of all farmland in the County was used as pasture or for growing forage or silage. The remaining top five livestock and animal activities include goats, layers and broilers.

Poultry production has been increasing in recent years and 104 houses were counted in the fall of 2011. The poultry industry is controlled by integrators, which are vertically integrated firms that operate hatcheries, feed mills and processing plants, and that contract with independent farmers to raise chicks to market weight. Tyson and Case are integrators who contract with producers in the County and provide chicks, feed, veterinary services and other inputs to the farmers. Farmers provide the poultry housing, labor and utilities, and care for the chicks until they reach market weight and are removed by the integrator. For their service, farmers are paid a fee under a production contract.

Crop Activities	Farms	Acres
Forage	367	13,477
Soybeans	54	9,049
Wheat	36	4,773
Corn for grain	30	1,789
Corn for silage	7	901

Livestock & Poultry Activities	Farms	Inventory
Cattle & Calves	342	13,356
Horses	250	1,837
Goats	96	1,603
Layers	61	51,903
Broilers	20	665,043

Table 1. Leading Production Activities, 2007

The USDA National Agricultural Statistics Service works cooperatively with the NCDA Agricultural Statistics Division to collect and report agricultural statistics. Because of timing and methodology differences between the Census and annual State report, production and sales figures can vary significantly. The five-year Census provides the most comprehensive statistics while the annual State report provides the most recent. Sales figures for 2007 from both sources are shown in Figure 4 to provide a basis of comparison. The 2007 Census of Agriculture reported \$30.5 million in sales from Catawba County, which included \$18.1 million from livestock, poultry and their products, and \$12.4 million from crops. For the same year, the NC Agricultural Statistics reported \$37 million in sales with \$23 million coming from livestock, poultry, and their products, and \$14 million from crops.



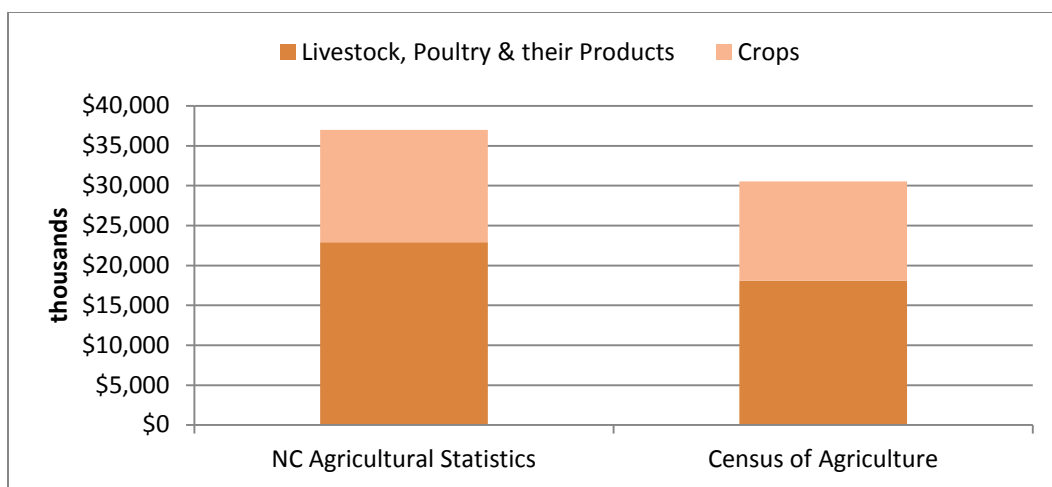


Figure 4. Sales of Agricultural Products, 2007

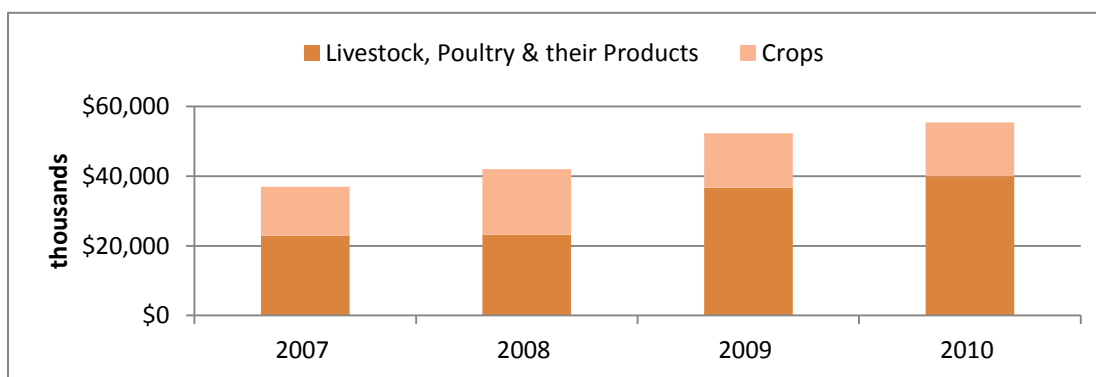


Figure 5. Sales of Agricultural Products, 2007-2010

Figure 5 shows sales for each year from 2007 to 2010 as reported in the annual NC Agricultural Statistics. Total sales raised an average of 15 percent each year and were \$55.5 million in 2010. Livestock and related sales rose 58 percent in 2009 and nine percent in 2010. This growth was led by broilers which contributed to 90 percent and 83 percent of the increases in livestock and total sales, respectively from 2007 to 2010. Sales from crops rose 34 percent in 2008 and then declined by 18 percent by 2010. Figure 6 shows the leading sales activities in 2010. Broilers generated the most sales with \$30.3 million followed by ornamentals with \$9.2 million. Field crops—corn, soybeans, wheat, etc.—generated \$5.2 million and \$4.2 million was generated from the sales of cattle and calves.

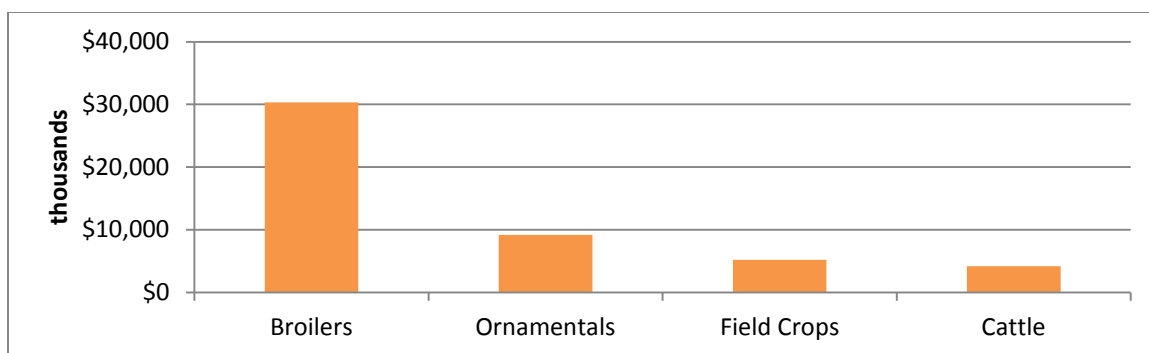


Figure 6. Leading Sales Products, 2010

Figure 7 charts farms and sales according to sales per farm reported in the 2007 Census of Agriculture and illustrates that sales were concentrated among a small number of farms. Three percent of the farms accounted for 62 percent of sales. Those farms each had sales of more than \$500,000. Conversely, 92 percent of farms each had less than \$50,000 and generated a combined 13 percent of the County's total farm sales. Although sales alone do not indicate viability, it is interesting that \$50,000 is the point where farms begin to generate a relatively higher proportion of total sales because nationally, most farms only make a profit when sales are at least \$50,000.¹⁰

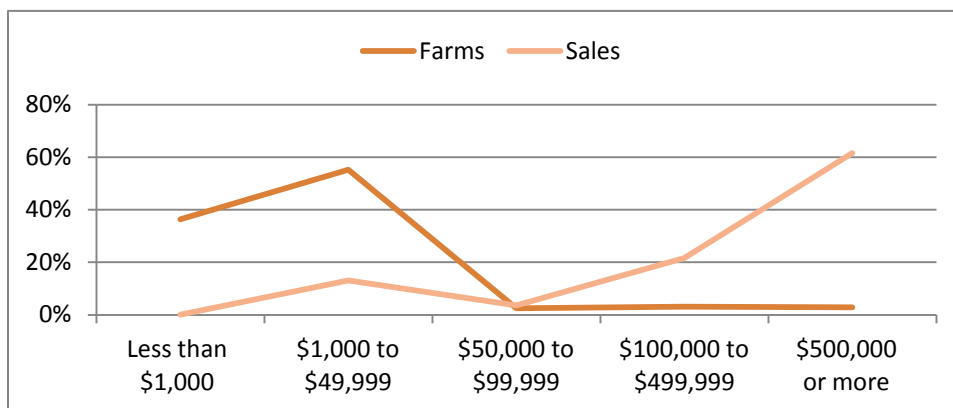


Figure 7. Distribution of Farms and Sales by Sales Category, 2007

Net cash farm income of operations is derived by adding total sales, government payments and other farm-related income, and subtracting farm expenses. In 2007 net cash farm income from operations totaled \$2.37 million and averaged \$3,226 per farm. Although this figure considers all sources of income and expenses for activities conducted on farms, it does not distinguish between contracted farmers and the integrators for whom they produce—19 poultry farms raised their products under contract in 2007. Net cash farm income of operators is the total revenue minus total expenses received and paid by farm operators. Total revenue includes production contract fees, total sales made outside of production contracts, government payments and other farm-related income. In 2007 operators had a total net loss of \$49,000 and averaged a loss of \$67 per farm.

Table 2 shows net cash farm income figures for 2007. Two observations are significant: farms with net losses greatly outnumbered those with net gains, and operations performed better than operators. Seventy percent of farms realized a net loss and while operators received 72 percent of the gains earned by the operation, they realized 101 percent of the losses. (2007 Census of Agriculture)

	Operations	Operators
Net cash farm income (\$1,000)	2,377	-49
Average per farm (dollars)	3,226	-67
Farms with net gains	228	223
Average gain (dollars)	34,396	24,771
Total gains (\$1,000)	7,842	5,524
Farms with net losses	509	514
Average loss (dollars)	10,736	10,843
Total losses (\$1,000)	5,465	5,573

Table 2. Net Cash Farm Income, 2007

In 2008, farms contributed \$42.1 million of value to the County's economy, measured as the value of sales minus the cost of non-labor inputs.¹¹ That represented 0.7 percent of the County's gross economic product for the year, which was \$6.2 billion. Table 3 shows the economic value added statistics for farms and agribusinesses in 2008. Manufacturing agribusiness includes processing operations where farm products are the primary non-labor input, they added \$85.2 million to the local economy. Wholesaling/retailing agribusiness includes the sales of food products through channels such as restaurants and grocery stores, they added \$234 million to the local economy. Altogether, agriculture and food industries comprised 5.8 percent of the County's gross economic product in 2008. As with net income discussed above, several clarifications should be noted. The value added by farming includes the sales of poultry products raised on contract, much of which accrued to companies located outside the County. Manufacturing and wholesaling/retailing includes sales of products that did not originate in the County.



Agriculture/Food Industries	Dollars	Pct. of County
Farming	42,102,258	0.7%
Manufacturing	85,194,943	1.4%
Wholesaling/Retailing	233,960,618	3.8%
Total	361,257,819	5.8%

Table 3. Economic Value Added from Agribusiness, 2008

Farm Characteristics

An informative way to examine the composition of farms is by a classification called farm typology, which was developed by USDA's Economic Research Service in order to group farms by similar characteristics, namely those having to do with sales, ownership structure, and primary occupation. There are two major categories: Small Family Farms, which have sales of less than \$250,000; and Other Farms. Small family farms are divided into five subcategories, described below along with the other farms.

Small Family Farms:

Limited-resource farms have sales of less than \$100,000 and the principal operator's total household income of less than \$20,000

Retirement farms have sales of less than \$250,000 and the principal operator reports being retired

Residential/lifestyle farms have sales of less than \$250,000 and the principal operator reports his/her primary occupation as other than farming

Farming occupation/lower-sales have sales of less than \$100,000 and a principal operator who reports farming as his/her primary occupation

Farming occupation/higher-sales have sales between \$100,000 and \$249,999 and a principal operator who reports farming as his/her primary occupation

Other Farms:

Large family farms have sales between \$250,000 and \$499,999

Very large family farms have sales of \$500,000 or more

Nonfamily farms are organized as nonfamily corporations or are operated by hired managers



Table shows information about the farms in Catawba County in 2007 grouped by farm typology: number of farms, total acres, and farm size in acres. Unfortunately the 2002 Census of Agriculture did not include a farm typology table, so comparisons between the two census periods are not possible. Given the evaluation of farms based on sales (see Figure 7), it is not surprising that small family farms make up a large majority of farms in the County. Residential/lifestyle farms form the largest group of farms in terms of both number and acres of farmland. At 77 acres per farm they are relatively small in size but combined they account for 33 percent of all the farmland in the County. The 7 farming occupation/higher sales farms are of particular importance and vulnerability. These mid-size farms often typify the notions of a family farm and rural character but they are losing their competitiveness in the commodity markets where very large farms are achieving efficiencies of scale and because they are too large to participate in the direct-sales markets where higher profit margins can be realized.

Farm Typology	Farms	Acres	Avg. Acres
Small Family Farms			
Limited-resource	115	7,020	61
Retirement	160	14,841	93
Residential/lifestyle	313	24,029	77
Farming occupation/lower sales	100	8,842	88
Farming occupation/higher sales	7	1,270	181
Small Family Farms - Total	695	56,002	81
Large family farms	9	4,864	540
Very large family farms	19	6,124	322
Nonfamily farms	14	4,916	351

Table 4. Farm Typology, 2007

The aging of farmers has been an ongoing concern across North Carolina and United States. In 2007 the average age of principal farm operators in the County was 58.2 years. Although that was one year older than the state average, it was the same age as in 2002. Figure 8 shows the distribution of principal farm operators across age groups. The largest group was aged 55 to 64 years, which was 27 percent of all principal operators. Sixty-eight percent were 64 years of age or younger. It should be noted that the Census only reports age statistics on principal operators. Thirty-six percent of farms reported having two operators and eight percent reported having three or more. It remains uncertain as to how many of



those secondary operators are of a younger generation than their corresponding principal operator, and are in line to take over the farm when the principal retires.

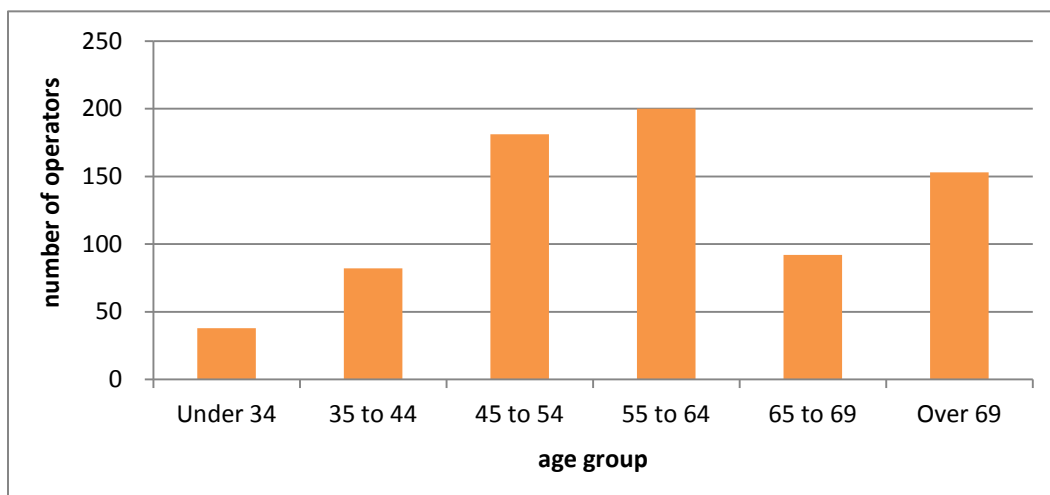


Figure 8. Age of Principal Farm Operators, 2007

Forestry

Forestland not subject to preservation in the County totaled 100,544 acres in 2010,¹² including woodland on farms. Timber production and income figures are summarized in Table 5. According to the US Forest Service, timber product output from Catawba County totaled 4 million cubic feet in 2009. Saw logs accounted for 3 million cubic feet, 64% of which were cut from softwood species. Pulpwood, mostly from hardwood species, was the other major product totaling 876,000 cubic feet. Timber from the county is also used to make veneer logs and composite panels.¹³

Sales from timber are reported by NCSU Forestry Extension and measured in two categories, stumpage value and delivered value. Stumpage value is the price paid to landowners for standing timber. Delivered value is the price paid to timber buyers upon delivery of timber to mills. Using the 2009 timber product output data (Cooper *et al.*), the total stumpage value in 2010 was estimated at \$3 million and the total delivered value was estimated at \$6.3 million, which ranked 40th in the state.¹⁴

The total economic value of forestry industries to the County in 2008 was \$146.8 million, 2.3% of the County's gross economic product (see Table 6). Farming, or the production of timber, accounted for \$8 million, wholesaling/retailing accounted for \$16 million, and manufacturing accounted for \$122.7 million.¹⁵

Timberland in 2010 (acres)	100,544
Total Timber Product Output in 2009 (cubic feet)	4,033,000
Saw Logs Produced in 2009 (cubic feet)	2,995,000
Pulpwood Produced in 2009 (cubic feet)	876,000
Stumpage Value in 2010	\$2,973,390
Delivered Value in 2010	\$6,277,553

Table 5. Key Timber Figures

Forestry Industries	Dollars	Pct. of County
Farming	7,888,433	0.0%
Manufacturing	122,724,415	1.4%
Wholesaling/Retailing	16,187,380	0.9%
Total	146,800,228	2.3%

Table 6. Economic Value Added from Forestry, 2008

Present Use

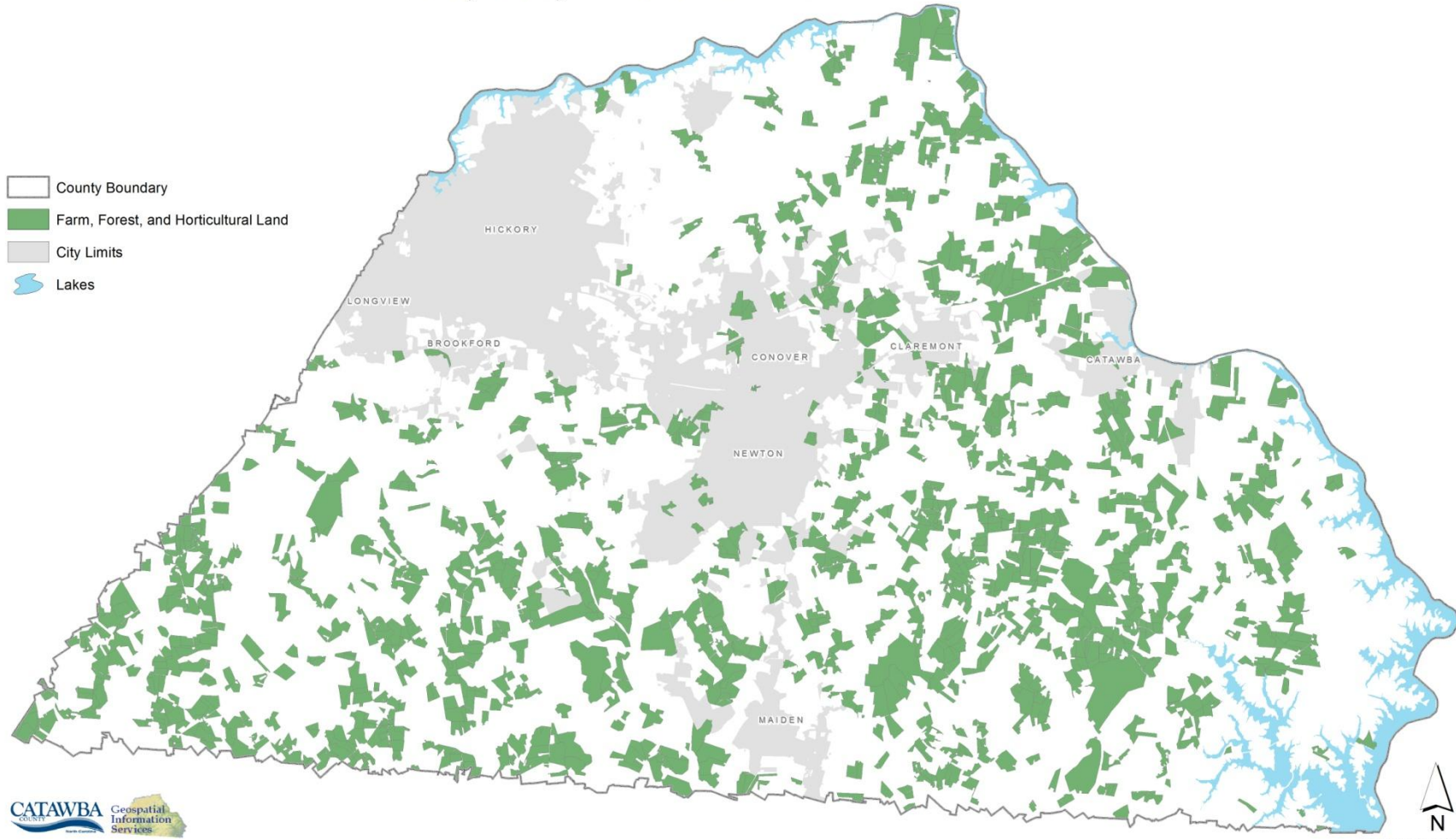
Catawba County's Present-Use Value program is administered by the Tax Office. It allows for qualifying property to be assessed at its current use of agriculture, horticulture or forestry (see Appendix E for further details on the Present-Use Value program). It serves as one of the best farmland preservation programs, in that it allows the farmer to keep valuable land in production due to a reduction in the property taxes. As of March 2013, there were 1,498 parcels, with a total of 57,231 acres, in the County's Present-Use Value Taxation program. The average parcel size was 38.97 acres. Map 6 shows the land that is in the County's Present Use Value Program.

Per Capita Consumption Needs for County

Based upon Catawba County's population of 154,358 people and USDA's recommended per capita fruit/vegetable consumption of 648 pounds per year, Catawba County would need 100,023,980 pounds of produce to feed its population for a 12-month period of time. In order to grow this amount of food, approximately 2,800 acres of land need to be in the production of fruits and vegetables. The most recent Census of Agriculture shows that there are only 148 acres of fruits and vegetables being produced in the County. This leaves a gap of over 2,650 additional acres needed to grow the produce



Catawba County Present Use Tax Value Farm, Forest, and Horticultural Land - 2013



needs for the County's citizens. Similarly, the County needs 1,351 dairy cows to produce the necessary dairy products for the County's population and there were only 600 head at the last Census. On the other hand, the County produces six times the number of broilers necessary for its own average consumption.

Agribusinesses

It is important to have the necessary local support services for farmers in order for them to be successful. Catawba County has seven farm supply dealers who provide products and services for farmers:

- New South Tractor
- Tractor Supply
- Claremont Hardware and Farm Supply
- Duan Farm Supply
- Newton Farm & Garden
- Balls Creek Farm & Garden
- Lutz Farm & Garden

Also, there are other support services being provided to farmers through the following:

- LFR, Inc. – agribusiness along with custom spraying, planting, harvesting, storing, marketing and transportation services
- Promise View Acres – custom planting, harvesting, storing, marketing and transportation service
- Claremont Supply – custom spraying, planting and harvesting



A major support service that is lacking in the County is a USDA approved meat processing facility. Producers have to travel over 20 miles outside of the County to Mays Meat Processing in Taylorsville. Because of the limited number of such facilities in the State, it can take several weeks to process meat at Mays. Caldwell's Meat Processing, located in Maiden, is USDA certified for pork only.

Century Farms

Today, there are about 52,000 farms in North Carolina, but only about 1,600 have the distinguished title of a "N.C. Century Farm," which recognizes families who have owned or operated a farm in North Carolina for 100 years or more. North Carolina's agricultural heritage is deep; therefore, it is important to recognize and celebrate the State's Century Farm families. Following is a list of Century Farm families in Catawba County:



- Ira Cline Farm: Ira Cline, Cline Revocable Living Trust (1898)
- Cora Danner
- Beth Robinson Elmore, Dean Wilson Jones
- Lee J. Greenhill, Loree W. Greenhill (1881)
- Hilton Family Farm: Boyd R. Hilton, Linda H. Long (1892)
- Earl H. Moose
- Howard B. Reinhardt (1878)
- Steve L. Sigmon (1881)
- Thomas W. Warlick, Martha W. Brame (1755)

Current Agricultural-Related Initiatives

There are many activities that are occurring in the County that support agriculture and local foods. Not only does the County have many programs and conduct several activities; but there are also several outside entities that are promoting agriculture. Following is an overview of both County and outside entities' programs/activities.

Public-Based Initiatives

Voluntary Agricultural District Ordinance

The Catawba County Board of Commissioners adopted a Voluntary and Enhanced Voluntary Agricultural District program in October 2008. The County's ordinance included both the general VAD program and the enhanced version, with the later requiring a stronger commitment from the farmer to participate in the program by signing a 10-year irrevocable conservation agreement. Catawba County's VAD program is unique in that it is jointly administered by Cooperative Extension and the Planning Department. Cooperative Extension works with farmers on applying for the VAD program, and Planning provides technical and grant assistance.

The purpose of the County's VAD program is to increase the identity and pride in the agricultural community and its way of life. It also provides protection for farmers from non-farm development including nuisance suits and other negative impacts on properly managed farms.

To begin implementing the new ordinance, the County established an advisory committee of farmers and others with farming interests to approve agricultural districts and provide input on farming-related issues in the County. A 7-member Agricultural Advisory Board was appointed by the Board of Commissioners in January 2009. The Agricultural Advisory Board conducted a wide outreach program to promote the new ordinance to encourage participation in the VAD program and to educate the public on the location of active farms. Within the first



year, over 4,300 acres were approved in the program which involved 42 landowners. To date, the County's VAD program has more than 8,700 acres (see Table 7 and Map 7).

	# of Acres	# of Landowners	# of Parcels
General	8,042.71	70	178
Enhanced	682.01	11	25
TOTALS	8,724.72	81	203

Table 7. VAD Program Statistics. 2012

In order to broaden the VAD program throughout the whole County, a workshop for municipal representatives was held in October 2010. As a result of the workshop, Memorandums of Understanding have been executed with five jurisdictions for the County to implement the VAD program in the cities' planning areas. These jurisdictions include: the cities of Hickory, Claremont and Newton; and the towns of Catawba and Maiden.

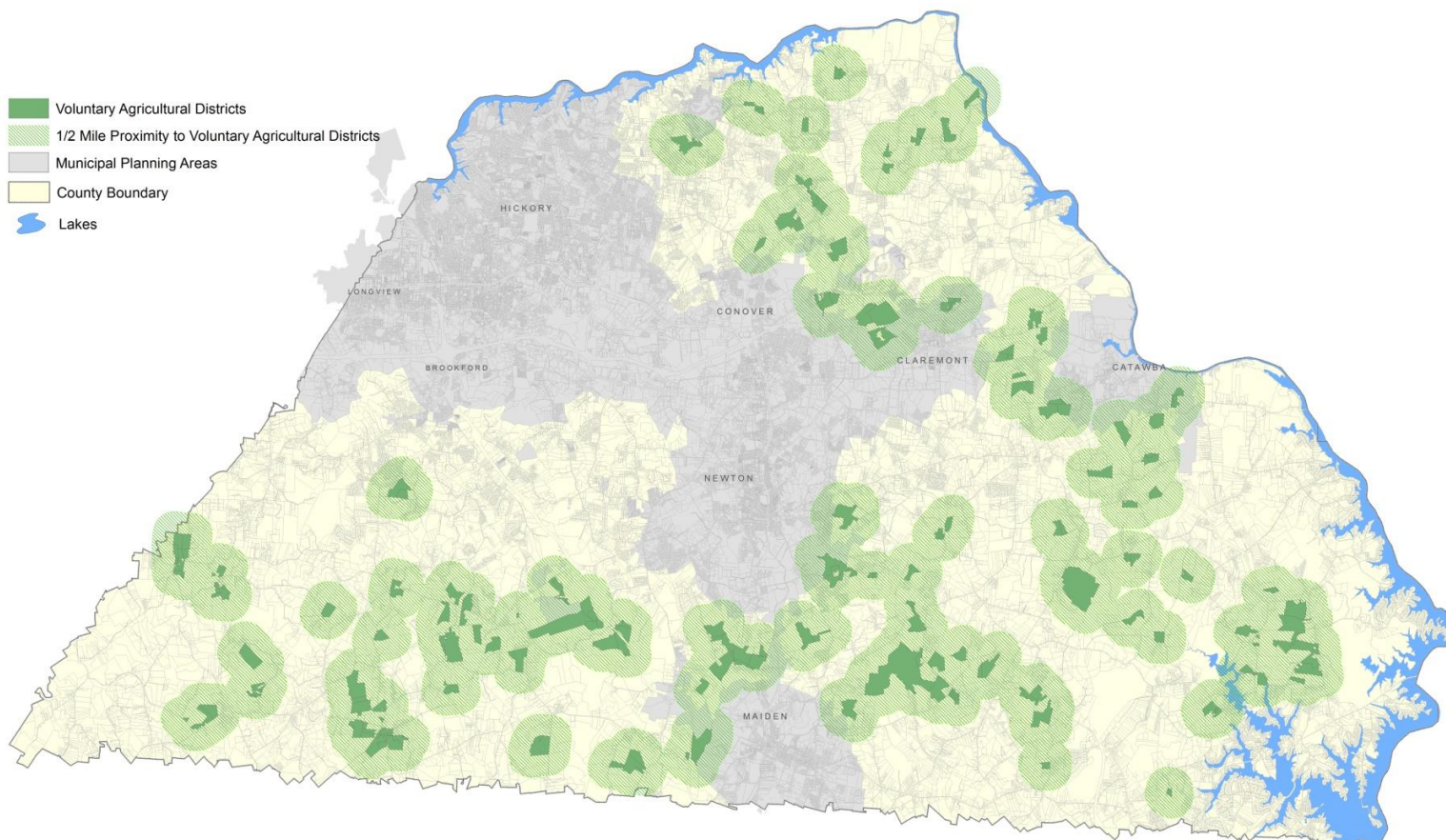
Farmland Preservation and Estate Planning Workshop

In 2010, Catawba County conducted a series of workshops to promote farmland preservation and the County's VAD program. The first activity was a Landowner Preservation Workshop held on August 4-5, 2010. The first day of the workshop, attended by over 80 citizens, was an educational session where the attendees were provided information on the County's voluntary agricultural district program, conservation easements, tax incentives, estate planning and succession planning. Experts from the County, NC State, NC Farm Transition Network and Foothills Conservancy Land Trust presented at the workshop. A follow up survey completed by attendees showed that as a result of the information received they would take action to help tax shelter their land or seek legal counsel to prepare a will and plan their estate with input from family members. On the second day, fourteen families met individually with estate planning professionals to talk specifically about their financial needs.



Catawba County

Voluntary Agricultural Districts



Cooperative Extension

Cooperative Extension provides a variety of services and programming which supports the County's agricultural community. Following are some of its programs:

- Catawba Valley Cattlemen's Association (CVCA) – The Cattlemen's Association was organized 1977 with a current membership of 110 producers. The Association conducts monthly educational programs, offers a college scholarship program, supports youth livestock programs and conducts an annual educational tour for beef producers. The Association also maintains a variety of livestock handling equipment to loan to members and a group marketing facility in the Startown community (see next item).
- CVCA Group Marketing Facility – The CVCA Marketing facility is located in the Startown Community on the farm of Dennis and Tyler Lutz. CVCA secured a grant from the Rural Advancement Foundation International (RAFI) in 2010 to construct this facility for the benefit of small to mid-size cattle producers in the surrounding area. The Association purchased and constructed a group scale and load out facility and located it within the existing corral and animal handling facility on the Cattle Creek Farm operation owned by Dennis and Tyler Lutz. The facility is used to help co-mingle small groups of feeder calves into uniform loads of 48,000 lbs each for more orderly marketing of calves from smaller operations. This marketing strategy allows owners of small herds to participate in marketing methods such as video auctions, internet sales and private treaty transactions in order to receive the premium that exists for calves of known origin and verified animal health programs, including weaning and preconditioning programs. This marketing effort also allows small herd owners to receive the "big group price" that eludes them in more traditional marketing methods such as weekly auction markets and private treaty sales at the farm. Groups of producers rely on Cooperative Extension to help identify producers with similar breeding and management programs that will facilitate the organization of loads of calves. Extension also assists with collecting starting weights on calves at weaning, selecting a vaccination program for the group to utilize, selecting a marketing agent, projection of ending weights of calves so sale weights can be estimated, and the delivery, weighing and sorting of loads on the appointed load out date. Participating producers pay the association a \$2 per head fee for use of the facility to pay for upkeep and maintenance of the facility.
- Catawba Valley Beekeepers Association – The Association meets monthly to assist local beekeepers with hive management. The beekeepers supply hives for crop pollination and collect honey which is sold locally. The Association also co-sponsors a beginning beekeepers school with Cooperative Extension each spring to teach individuals



CATAWBA VALLEY
CATTLEMEN'S ASSOCIATION

INCORPORATED
4591 BALL DAWG ROAD, CLAREMONT, NORTH CAROLINA 28610



about beekeeping, instructing an average of 20 new beekeepers each year.

- NC Extension Master Gardener Volunteers – New volunteers are trained as Master Gardeners each spring, and monthly educational meetings are held for members. Master Gardeners answer questions from homeowners at the Extension office, at farmer’s markets and other public venues throughout the spring and summer. They also manage a raised bed garden at the Extension office to educate the public about growing vegetables.
- 4-H Livestock Club – The 4-H Livestock Club provides monthly educational programs for members and conducts service projects in the community. Its members learn about livestock including cattle, sheep, swine and goats through livestock judging and a skill-a-thon. Catawba County has had numerous state and national winning teams and past members have completed agricultural degree programs at universities in North Carolina, Kentucky, Georgia, Oklahoma, and Arkansas.
- 4-H Garden Club – The 4-H Garden Club meets monthly with educational programs on gardening, horticulture, and environmental topics for youth ages 5-16. Its members have been involved in leading and supporting youth gardening programs in other community locations, such as assisting with a youth gardening program at Brown-Penn Recreation Center and teaching special interest environmental programs as part of 4-H summer camps.
- 4-H Mini-Garden Program - The mini-garden program is a short-term special interest program for youth ages 7 and older. Through the program, youth learn the basics of growing and caring for a vegetable garden as they create and care for their own small vegetable garden. Summer workshops are conducted to help youth learn about gardening and related topics during the summer months. The children also work on a garden project book that reinforces record keeping, writing, and organization skills.
- Southeast Asian Educational Agricultural Program – This program is lead by Cooperative Extension staff with funding from NC A&T State University. An annual grower’s school and a demonstration garden with a high tunnel is located at the Catawba County EcoComplex. The program is designed to help Asian immigrants learn modern farming techniques for improved production, marketing and profitability.
- Catawba Valley Youth Beef Expo –A beef cattle show was organized in the 1980’s and is still held annually in June. A local board of directors organizes and conducts the show which is open to the entire state of North Carolina. Educational outreach includes livestock judging and skill-a-thon competition.
- Catawba Valley Lamb and Goat show – A sheep and goat show was organized in the 1990’s and also is held annually in June. A local committee organizes and conducts the show which is open to the entire State of North Carolina. Educational outreach includes livestock judging and skill-a-thon competition.



- Catawba County Agricultural Foundation – The foundation was organized in 1984 with initial endowment funds coming from the sale of the county’s land terracing association equipment. Interest income is used to fund educational programs targeted at youth issues.
- Farm City Week Committee – This committee organizes the annual observance of Farm City Week. The Hickory Kiwanis provides sponsorship for an Outstanding Contributor to Agriculture award at the annual banquet in November. Also an auction is held in conjunction with the banquet to raise funds for the Agricultural Foundation.
- Agribusiness and Manufacturing Tours – This event is organized by Cooperative Extension, the Agricultural Advisory Board, Farm Bureau and Chamber of Commerce. The tours provide an up close look at agriculture and manufacturing for urban and rural residents.
- Hickory American Legion Fair – The fair is held in late August through Labor Day each year with the year “2013” being the 100th Anniversary observance. The fair includes open and youth livestock shows, horticultural and craft competitions and midway entertainment.
- Foothills Antique Tractor and Power Association – This Association includes antique and vintage farm equipment enthusiasts, which currently has a membership of over 100 individuals. The Association hosts an annual farm day with demonstrations of harvesting and processing equipment from earlier times. The proceeds from its annual tractor show benefits numerous civic and educational organizations in the local area.
- Foothills Fresh – Foothills Fresh is a Cooperative Extension effort to identify local food producers and help consumers connect with them. The current website lists members by county or by commodity and provides other information on the availability of local foods.
- Foothills Aggregation Facility Feasibility Study – A feasibility study is currently being developed to determine the feasibility of a produce aggregation, packing and marketing facility for local producers. The study is being lead by Cooperative Extension in Gaston County and includes all surrounding counties, including Catawba County.
- Extreme STEM Tours – The STEM (Science, Technology, Engineering and Mathematics) tour is coordinated by Education Matters and includes a tour of the Catawba County EcoComplex Biodiesel Manufacturing Facility. Cooperative Extension provides students with information on the need for these STEM skills in promising careers related to agriculture. The Utilities and Engineering Department educates students on the need for these skills in food and fuel production and utilization.
- Environmental Awareness Workshop – An annual educational outing is held for local 5th grade students. The event, focusing on environmental stewardship and related issues, is coordinated by Soil and Water Conservation in partnership with Forestry, Wildlife, Agriculture and other agencies and organizations.
- Environthon – Envirothon is a local, district, regional and statewide competition for middle and high school students. Educational curriculum and support for the competition is provided by



Soil and Water Conservation District (SWCD) personnel for teachers that train team members in environmental management concepts.

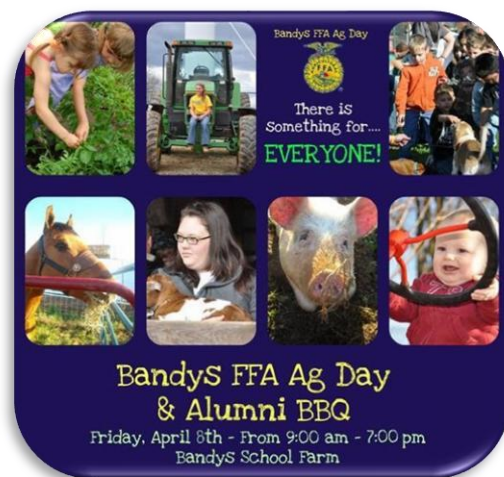
- Poster, speech, digital poster and digital presentation competitions – These competitions are organized and lead by SWCD staff to encourage young people to communicate about environmental issues. Winners are recognized at the annual SWCD banquet.

County Schools

Four of the County's high schools have a Future Farmer of America (FFA) program: Bandys, Bunker Hill, Fred T. Foard and St. Stephens. The schools' programs provides an opportunity for students to take agricultural-related courses plus have hands-on experiences which will teach them ways to practically learn farming skills. In order to receive a "degree" from FFA, there must be a minimum of 10 hours of a supervised agricultural experience, in addition to agricultural education coursework. Following are highlights of some of the agricultural programs and projects in the County's schools.

Bandys High FFA & Agriculture Department

Bandys High School has two different opportunities for students to gain hands on technical skills through the agriculture education program - the school's greenhouse and the livestock farm. The current greenhouse was built in the early 1980's and plans are being discussed to replace this facility to meet the needs of its students and program. The program hosts both a Plant Sale in the spring and a Poinsettia Sale in the fall to raise money for the horticulture program. The livestock farm is currently under a massive re-fencing project to better meet the needs of the program. Students have a



unique opportunity to show livestock through a partnership between the farm and local producers who let them borrow beef heifers to raise and show during the fall, providing students the opportunity to work hands on with the animals and serve as ambassadors to the industry.

The agricultural program conducts an annual Agricultural Day event in spring that brings in over 3,000 visitors. The school hosts area elementary school students on the school farm to help teach them about agriculture and its role in society. The high school students bring in livestock and create interactive presentations for the visitors to go through. This program is unique in that it is one of a few

such programs in the State.

The program also has several career development events, such as a Milk Quality & Products Team, Food Science and Technology Team, Livestock Show Team and a Tool Identification Team. These teams have placed very well in regional and State contests.

Students from the Bandys High School program have received numerous awards and scholarships with several pursuing agricultural education degrees in college.



Bunker Hill High School

Bunker Hill High School has an active FFA program. In addition to the agricultural and natural resource course of study, there are many FFA activities for students to be involved in. These include a State Fair field trip, State FFA Camp, various farm animal judging shows and safety classes. Students also have made presentations to River Bend Middle School and constructed plant beds for Oxford Elementary School. A new 30' by 60' polycarbonate greenhouse has recently been constructed on the school campus,



which was funded with a donation from the Catawba County Farm Bureau and a grant from the FFA Improvement Program. Students expended over 700 man hours in this learning process. The greenhouse will be open to the public for plant sales in spring 2013.

Eat Smart, Move More

Eat Smart Move More (ESMM) Catawba County is a community coalition working to prevent obesity in Catawba County. The coalition is focused on policy, systems and environmental change strategies that increase access to healthy foods and physical activity. This includes the creation of two new farmers markets to increase access to fresh produce among residents who live in “food deserts” or lack convenient transportation options; policies in schools and childcare centers to promote consumption of fruits and vegetables; support of the development and maintenance of the Carolina Thread Trail and the Downtown Newton Walking Trails; and exploration of joint use agreements to increase the County’s number of convenient places for physical activity. Coalition members represent two local hospitals, all three local school systems, medical providers, nonprofits, local businesses, farmers markets, and local public sector agencies.

In June 2012, ESMM launched its first farmers market in partnership with Center United Methodist Church. The goal of the market was to make locally grown fresh produce more accessible to residents in rural Catawba County. The church hosted the market in its parking lot, which was located in the outskirts of the Town of Catawba. The location was selected specifically due to its proximity to a “food desert”, where residents must travel for miles to access a full-service grocery store. The market ran for 20 consecutive weeks (Wednesdays, 2:00 - 5:30 p.m.) with 4-7 vendors and anywhere from 80-125 customers weekly. Vendors included home growers and professional farmers. All produce sold was locally grown and included tomatoes, corn, watermelon, sweet potatoes, okra, pumpkins, zucchini, cucumbers, chayote, herbs, peppers, kale, lettuce, swiss chard, and berries. This market will open



again in 2013.

In May 2013, ESMM will launch its second market in partnership with Catawba County Public Health's Women, Infants & Children supplemental nutrition program. All vendors are local and certified to accept WIC farmers market vouchers to help increase redemption rates and consumption of fresh produce among the County's WIC clients. The market location is in a business corridor that includes Public Health, Social Services, a local hospital, and a local public housing development. Because of this, the market also aims to increase access to fresh produce for the people served along this corridor. The market will be open to the public weekly (Thursdays, 11:00 a.m. - 2:00 p.m.) with an anticipated average of 5-8 vendors.

Agri-Tourism Event

Catawba County held its first Agri-tourism Day event on June 18, 2011 with the purpose to educate the public about sustainable agriculture and purchasing locally-raised foods, including beef, pork,



vegetables, fruits and honey. The event was a self-guided tour to 9 local farms and 12 agricultural-related events. There were approximately 1,000 farm visits to the 9 local farms with participants not only coming from Catawba County but as far away as South Carolina, Raleigh, Wake Forest, Greensboro, Sanford, Charlotte and Monroe. The day exceeded expectations and individuals have commented that they would like to see this be an annual event. Plans are to conduct another Agri-tourism Day in the summer of 2013.

Eat, Drink, and Be Local

Catawba County's inaugural Eat, Drink, and Be Local event took place the weekend of September 21st, 2012. Four restaurants (Youssef 242, Bistro 127, Hatch Sandwich Bar, and Roasted Tater) participated by featuring specials made from locally sourced food. These type of events aim to develop and foster connections between local producers and local restaurants. Cooperative Extension will target more restaurants for future events.



Catawba County EcoComplex

Catawba County's EcoComplex components continue to evolve in order to meet the goal of developing a system that will recover all useable products and by-products from a group of private and public partners that will work together to use each other's waste products either as a source of energy or as a raw material for the production of their own product. The EcoComplex is focused on making and using "green" energy and on the economic development of Catawba County. The facility is located at the site of the County's Blackburn Landfill on Rocky Ford Road.

The Eco-Complex consists of several components which are agricultural-related. Following is a description of those facilities:



- **Catawba County-Appalachian State University Biodiesel Research, Development and Production Facility**

Catawba County partners with Appalachian State University (ASU) to create a LEED certified facility for biodiesel research and production. ASU's research includes the testing of biodiesel fuel being produced by several companies in the region and the growing of crops around the landfill to test which ones grow best in our climate while producing the best oils for biodiesel production. Canola, sunflower and soybean crops are grown and harvested by local farmers.



- **Crop Processing Facility**

This facility processes the crops grown and harvested on idle landfill property and buffer areas. It receives, cleans, dries, stores and crushes the harvested crops. The feedstock crops are processed into two products (oil and seed meal) that have a higher value than the seed alone. The oil is cleaned and stored for future processing into biodiesel fuel. The seed meal has many potential uses such as a livestock feed additive, anaerobic digester feedstock and a greenhouse soil amendment.

- **F³ Research Project Employing EcoComplex Infrastructure and Oil Seed Crops**

ASU and Catawba County are partnering with Blue Ridge Biofuels, Biltmore Estates, and local farmers, with the support of the Biofuels Center of North Carolina, in improving the environmental footprint of agriculture through extending the value and usage of oil seed crops such as canola, sunflower, and soybean. Western North Carolina farmed oil seed will be pressed at the Crop Processing Facility creating food grade oil for marketing to local restaurants for frying and the rendered used frying oil returned to the Biodiesel Research Facility to produce biodiesel.

- **Hmong Demonstration Site**

The Hmong Demonstration Site consists of 1-acre of landfill buffer land leased to the Hmong Association for use as a horticultural demonstration site. The site includes a high tunnel structure, which is an unheated greenhouse utilized for frost protection and having the potential to extend the growing season by 6 weeks or more depending on the crop. It will be utilized to demonstrate season extension techniques and other advantages/disadvantages. Cooperative Extension is providing oversight of the Association's project and serves as a liaison between the Association and North Carolina A&T State University. This project recently completed a "Grower's School" providing a series of educational workshops for more than 20 Hmong farmers.



Catawba Valley Medical Center – Red Apple Program

In July 2011, Catawba Valley Medical Center was designated by the NC Prevention Partners as a “Red Apple” hospital for its role in offering healthier foods to its employees and visitors. The hospital posts its menu weekly on the hospital’s internet, identifying healthier food choices. Also the Healthy House garden at the hospital grows vegetables starting in early spring through fall for kids that are participants in the Childhood Obesity Program. All extra vegetables that are not used by the participants are brought to the hospital’s cafeteria to be served. US Foods, who is the hospital’s major food source supplier, will be notifying the Nutrition Care Division when produce is available thru local sources. This produce will also be served in the hospital’s cafeteria.



Private-Based Initiatives

Conover Farmers Market

The Conover Farmers Market began in 2009 with the help of three Conover individuals including a farmer, a business person and a citizen. Last year, the Market averaged 22 vendors and insists on producer-only farmers who grow what they sell or raise what they bring. The Market was initially sponsored by the City of Conover, but is now sustained by vendor fees and fundraisers. The Conover Farmers Market is looking for a permanent indoor home to offer a longer, more comfortable market season and also add an agricultural educational center. This could become a County tourist destination with food and old-timey agricultural demonstrations such as wool carding and weaving, sorghum making and bread making.

The Market usually opens in late April and runs through late October. Hours of operation are Saturday mornings from 7:30 a.m. to 12 noon.

Current market vendors from Catawba County are:

- Shady Oaks Farm, Newton- vegetables, fruits and free-range eggs
- Bowman Orchard, Claremont- fruits
- Johnny's Farm, Claremont- Asian and traditional vegetables
- Windy Wool Windings, Vale- lamb, mutton, wool fiber and garments
- Alpaca Barn, Conover- garments made from alpaca
- Ira Cline Farm, Conover - blueberries, persimmon, pecans, jams, jellies, sweet ciders, honey



In addition to selling farmer’s produce, the Conover Market provides an educational component for the community. Regularly scheduled events have included:



- Cooperative Extension giving demonstrations and information sharing about subjects such as composting, verma-composting, safe canning practices and soil and water conservation practices
- volunteers performing cooking demonstrations with market vegetables for free samples and also offering raw food tastings
- a personal chef who has cooked market vegetables and beef
- women showing shoppers how to make their own ricotta cheese and homemade apple juice.

After the Conover Market closes, the Market Manager (Julie Lehmann) brings farmers into area schools to talk about what and how they grow their vegetables and beef and the importance of eating fresh and local. Also a bee farmer has brought a hive under glass to the schools and talked about bees, honey and raising bees. The Manager also has partnered with the Farm Bureau, who purchased 27 copies of 'How Did That Get In My Lunch Box' by Chris Butterworth. She takes a group to read the book to each K-2 class in the County and then donates it to their library. At each school she asks if their school would be interested in a school garden and/or visits from area farmers.

In 2012, the Manager also has reached out to the Sipe Orchard House in Conover where she took fresh fruits and vegetables. She challenged the two kindergarten classes to identify and taste something new. Stickers were awarded to all who challenged themselves including some of the teachers.

Downtown Hickory Farmers Market

The Downtown Hickory Farmers Market (DHFM) was established with a mission to help the community by providing a wide variety of high quality produce at a fair price and a convenient location; information on nutrition, cooking and growing; and an entertaining and informative place to talk to growers and producers. It opened for business in April 2004 in a city parking lot adjacent to the old Hickory Station Restaurant and former train depot. 2013 marks the tenth year of operation with a new home under "The Sails on the Square" in downtown Hickory.

For nine years the DHFM had two operating days, Wednesdays and Saturdays. In 2013, the Market will be open on Mondays evenings from 4:00 pm to 7:00 pm. The Market opens in early April with Wednesday hours of 10:00 am to 3:00 pm and Saturday hours of 8:00 am to 1:00 pm. The last regular market day is usually the end of October.



The DHFM had over 65 different vendors in 2012. The vendors offer a variety of fresh grown vegetables both conventionally farmed to certified organic. Vendors provide grass fed beef, pork and lamb and also free-range chickens and eggs. In addition, vendors have fresh cut flowers, herb plants and cuttings, vegetable starts and bedding plants. Seasonal vendors offer strawberries, peaches, apples, raspberries, blackberries and blueberries, asparagus, lemon grass and fresh ginger root. Baked goods vendors



provide a full selection of breads, pies, tarts and more. Rounding out the list is: a goat cheese vendor, a honey vendor and a vendor who makes chocolates.

The DHFM offers a free community booth to a non-profit organization each Saturday to promote their mission. During each season, the Market often has chef demonstrations, craft demonstrations and/or music at the market. The Market has worked and continues to work with local community organizations such as Greater Hickory Cooperative Christian Ministries, Exodus Home, and the Flynn House to provide fresh donated produce to their constituents each market week. All produce waste is collected from the Market and is composted so as to limit its solid waste impact.

Catawba County Farm Bureau

The Catawba County Farm Bureau (CCFB) was incorporated in the early 1960's with several founding members still actively involved. It is served by a local board of directors elected at the annual meeting of its membership. Currently CCFB has some 7,000 family memberships in Catawba County.

The CCFB strives to provide funding for County and State organizations and programs that support agriculture. It has been a tradition of CCFB to maintain a close working relationship with federal, state and local elected officials in order to address issues affecting agriculture. CCFB has received the North Carolina Farm Bureau (NCFB) Legislative Award on numerous occasions, the latest being in 2011. The organization's "Meet-the-Candidates Forum" and annual appreciation dinner for elected officials are standard components of its legislative program.



The longest running support for agriculture in the County is "Farm-City Week" and the "Ag-in-the-Classroom" program. Farm-City Week is held in late November and fosters cooperation and an exchange of information between two essential segments of our society: farmers and city dwellers. CCFB held an "Ag-in-the-Classroom Workshop" in early 2013 where 30 County elementary school teachers attended to learn about ways to incorporate agriculture-based curriculum into their everyday classes.

CCFB provides funds for travel of Farm Bureau members attending state and national meetings of the Young Farmer and Ranchers and Women's Committee's programs as well as the Annual Meeting of the American Farm Bureau Federation. These programs and meetings develop leadership of the County's younger farmers which foster new ideas and programs to support agriculture.

For many years, CCFB has supported educational programs for youth in the County as requested by Cooperative Extension and the County schools. Following are some of the CCFB's areas of support:

- Catawba Valley Youth Beef Expo
- Catawba Valley Prospect Lamb Show
- 4-H Livestock Judging expenses
- State/National Livestock Judging/Skill-A-Thon
- FFA Chapters at Bandys, Bunker Hill, Fred T. Foard and St. Stephens High Schools



- New greenhouses at Bunker Hill and Fred T. Foard High Schools

For about 6 years, CCFB has annually provided four college scholarships to students from Catawba County who are planning a course of study in agriculture. Currently, a stipend of \$1,500 per year is awarded for four years of study. One of these scholarship awardees graduated from NC State and returned to the County and now provides financial services to the agricultural community. CCFB also provides \$1,000 annually to the NCFB R. Flake Shaw Scholarship Fund that supports 4-year scholarships across the State. Catawba County has had a number of winners of this award, including a student currently enrolled at NC State.

In 2008, CCFB purchased a no-drill to rent to farmers in the County. At the Board of Directors Meeting in February 2013, a decision was made to purchase another drill to replace the current drill to keep the rental program operating efficiently for farmers in the County. In the process of developing this Plan, it was determined there was need for a bedder/plastic layer machine to support the initiation of a fruit and vegetable production educational program by Cooperative Extension. CCFB responded to this need and has purchased the machine along with supplies. It is anticipated this machine will eventually be available for rent to small farmers in the County.

In 2011 and 2012, CCFB has worked with the Catawba County Chamber of Commerce, in cooperation with Cooperative Extension, to jointly sponsor a tour of farms by industry and business community representatives, followed by a tour of industry and businesses by farmers. This program has been well received and will continue into the future.

Catawba County Food Policy Council

The Catawba County Food Policy Council is a community-based organization whose interest is working on food insecurity issues. Its mission is “to bring together diverse stakeholders across the food system, to provide recommendations and guidance for food program issues. The Policy Council exists to reduce food insecurity, improve consumer access, establish suggested nutritional guidelines, and enhance community awareness for food collection and distribution.”¹⁶ The Council includes representatives from Public Health, Social Services, County schools, United Way, Salvation Army and local churches. The Council developed a formal policy in February 2012 in which it provided suggested food standards for those offering food assistance programs in the County. The standards included offering a variety of seasonally available fruits and vegetables. The policy also promotes fresh, local foods to be served in the County’s schools.

Catawba County HOPE Garden

Catawba County HOPE (Help Our People Eat) was founded by Christine S. Cofer, an employee with Catawba County government and the Founder/Director of the Western NC Epilepsy Association. She began the effort when saw a need in the County for citizens who were having difficult times due to the downturn in the economy. Her idea was to use



underutilized County-owned property for community gardens to grow food. Ms. Cofer then reached out to the local soup kitchens and Eastern Catawba Cooperative Christian Ministry to provide produce from the gardens to be served to the people they support. Currently, there are two community gardens: one in Newton and the other in the Springs Road area outside of Hickory. In 2012, the gardens provided 3,292 pounds of fresh fruits and vegetables to service organizations in the County.¹⁷



Small Area Plans

Catawba County's Small Area Plans serve as the County's long-range comprehensive plan, guiding policy and decision-makers on the overall growth and development of the County. There are seven Small Area Plan districts: Balls Creek, Catawba, Mountain View, Plateau, Sherrills Ford, St. Stephens/Oxford and Startown (see Map 8). The Plans were completed during the period of 2000 – 2005 by a committee of community representatives who identified a series of goals and actions items to address seven broad areas. These areas included: land use, transportation, community facilities/services, housing, economic development, natural resources, and cultural resources.

During the planning process, a series of community meetings were held asking the public what concerns they had about the area and what was their future vision of the area. Most all of the Small Area Plan community meeting participants identified concerns over the loss of rural character in the County. The seven Small Area Plans addressed this concern through their Guiding Principles, such as:

“Assist farmers and property owners desiring to maintain the agricultural or open space use of their property.”

The Plans further identified several strategies to address these concerns:

- Establish a Voluntary Agricultural District program in the County as a means of protecting the rights of farmers to continue to farm
- Assist property owners of farms in preserving those uses by providing information on conservation easements and tax credit measures
- Support the continuation of agricultural and farming activities, including related activities such as roadside stands
- Require a minimum amount of open space for new developments with buffers to separate adjoining land uses, such as agriculture, from new residential development

These strategies have been implemented over the last several years through the adoption of the County's VAD program in 2008, property owner workshops on conservation easements and estate planning and incorporation of agricultural-support businesses and open space provisions in the County's Unified Development Ordinance adopted in 2007.

A key component of the Small Area Plans is the future land use for each of the communities. Each Plan includes a Future Land Use map which identifies where higher-density development; and commercial and industrial uses should be located. As part of the decision-making process, the location of existing and planned water and sewer infrastructure was utilized. Commercial nodes were recommended at existing crossroads which could be used for support services for the rural community, such as veterinarian offices, farm supply stores, etc. Map 9 shows a compilation of the seven Small Area Plan's Future Land Use maps.



In evaluating the impact of water and sewer infrastructure on the County's farmland, information was compiled consisting of the growth corridors (future non-residential development areas designated in the Small Area Plans), water and sewer infrastructure and suitable farmland. The baseline information for suitable farmland was the Land Suitability Classification established by the USDA – Natural Resources Conservation Service. Map 10 shows the geographical relationship between all of these components. Class 2 and 3 soils depicted on the map are soils which have moderate limitations that reduce the choices of plants or require moderate conservation practices. Due to the predominance of suitable soils for farmland in the County, the extension of water and sewer lines to serve the County's growth corridors will have a minimal impact on farmland.

Unified Development Ordinance

Catawba County compiled all of its land use regulations into one document, titled the Unified Development Ordinance (UDO), which was adopted by the Board of Commissioners in February 2007. This includes all zoning, subdivision, floodplain development and watershed regulations into one comprehensive ordinance. As part of the UDO adoption process, all property in the County was rezoned to new categories of zoning districts. Map 11 shows the adopted zoning in the County.

The UDO, along with the Small Area Plans, is used to implement County land use policy. As indicated in the Small Area Plan section above, the UDO incorporated several provisions which support farming and agricultural-support uses. Following is an overview of these standards:








- Bonafide Farm Exemption – Under North Carolina General Statutes, a County may not regulate the uses of a bonafide farm through its land use regulations. Catawba County's UDO exempts bonafide farms, which are defined as:
 - “ The production and activities relating or incidental to the production of crops, fruits, vegetables, sod, or ornamental and flowering plants, dairy, livestock, poultry, and all other forms of agricultural products having a domestic or foreign market meeting one of the present use value criteria:
 - 1) agricultural land consisting of at least 10 acres, or horticultural land, consisting of at least 5 acres, both of which may be on one of more tract that are in actual production. These tracts may be owned or leased by the operator which must have one of the following:
 - a. Sales of \$1,000 for each of the 3 years preceding January 1 of the year of application;
 - b. A business plan, which at a minimum must include a marketing strategy and projected income and expenses;
 - c. A signed contract with an established retail or wholesale entity showing a future sales outlet for the product; or
 - d. Production of a non-farm product recognized by the North Carolina Department of Agriculture and Consumer Services as a “Goodness Grows

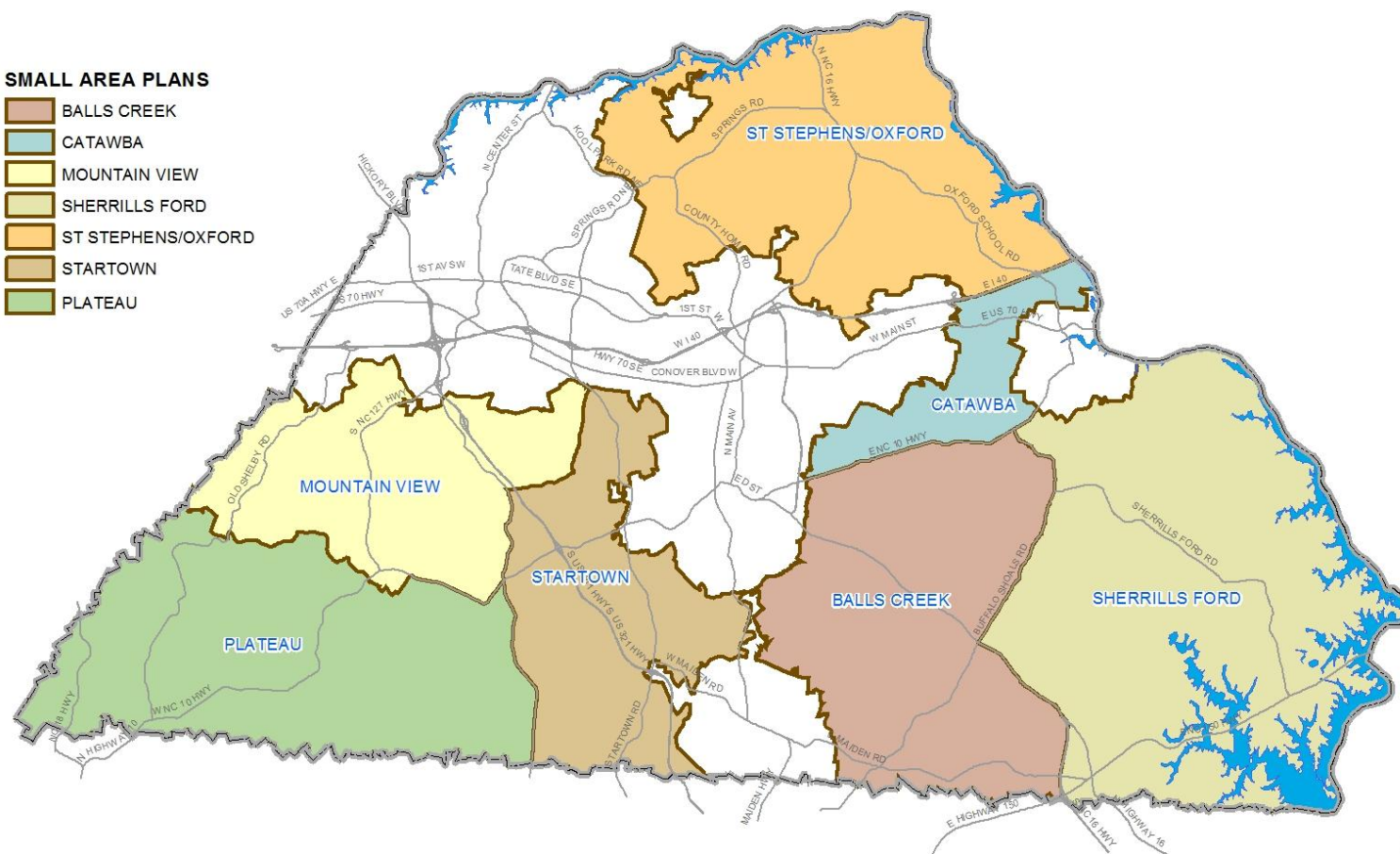


Catawba County

Small Area Plan Boundaries

SMALL AREA PLANS

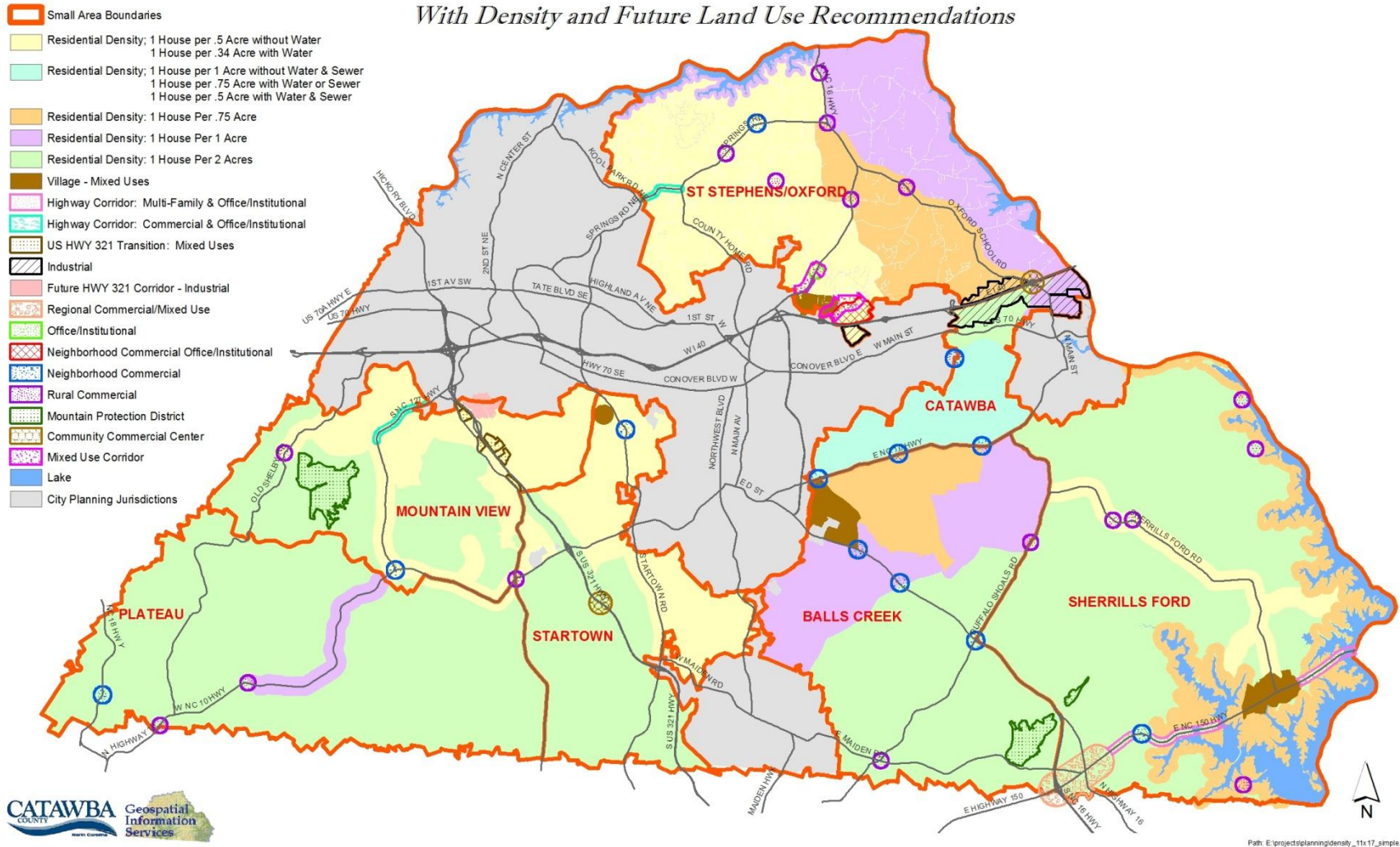
-  BALLS CREEK
-  CATAWBA
-  MOUNTAIN VIEW
-  SHERRILLS FORD
-  ST STEPHENS/OXFORD
-  STARTOWN
-  PLATEAU



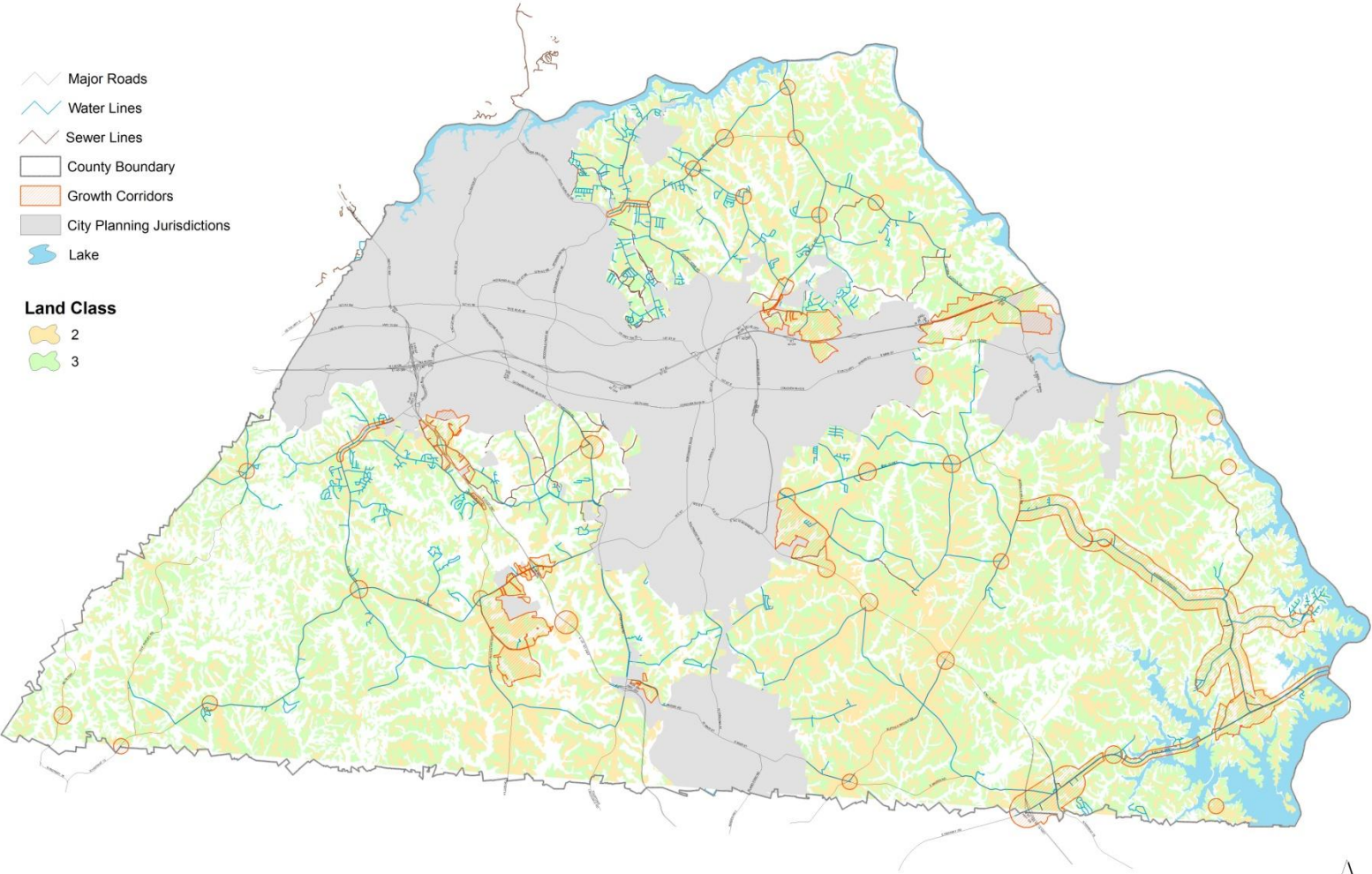
Path: E:\projects\SmallArea\www2_8x11_simple.mxd



Catawba County Adopted Small Area Plans With Density and Future Land Use Recommendations



Catawba County
*Land Capability Classifications
with Growth Corridors*



in North Carolina” product, that is produced on a farm subject to a conservation agreement under G.S. 106-743.2

- 2) A minimum of 20 acres of forestland for which a woodland management plan has been prepared by the U.S. Forest Service”

Agricultural support facilities on the farm and agri-tourism on bonafide farms are also exempt from the County’s land use regulations. Agricultural support facilities are defined by §NCGS 106-581.1 which states:

“When performed on the farm, ‘agriculture’, ‘agricultural’”, and ‘farming’ also include the marketing and selling of agricultural products, agritourism, the storage and use of materials for agricultural purposes, packing, treating, processing, storing, storage, and other activities performed to add value to crops.”

Agritourism is defined under NCGS §99E-30(1) as:

“any activity carried out on a farm or ranch that allows members of the general public, for recreational, entertainment, or educational purposes, to view or enjoy rural activities, including farming, ranching, historic, cultural, harvest-your-own activities, or natural activities and attractions.”

- Agricultural support businesses - the UDO allows for several agricultural support businesses in the RC (Rural-Commercial) zoning district. These uses include: farm supplies; commercial greenhouses; hardware stores; saddlery/tack shop; and wineries/breweries. Animal hospitals/veterinarians are allowed in residential areas subject to a special use permit and on HC (Highway Commercial) zoned property by right. Other larger-scale commercial operations, such as farm and heavy equipment sales/rental are also allowed by right on HC zoned property.
- Cluster/open space – the UDO encourages the development of residential subdivisions through its cluster subdivision provisions. The UDO states the purpose of a cluster subdivision design to:

“provide for a subdivision design that is more efficient and better suited to the natural features of the land and blends into the character of a rural area.”

The UDO also specifically notes that the clustering of lots can preserve sensitive farmland, woodlands, scenic views and open space.

Through a cluster subdivision, individual lot sizes are allowed to be reduced in exchange for the preservation of an equal amount of open space. Under the cluster subdivision provision, a minimum 25% of the net acreage of the subdivision must be established as permanent open



space. In determining which land to be set aside as open space, the UDO includes the “retention of productive farmland or forestland for continued agricultural or forestry use.” Setbacks abutting the perimeter of the entire cluster subdivision site must be at least 50 feet, which can provide a buffer to adjoining farmland. When evaluating the layout of the subdivision, it is noted that dwellings must be located away from active farming areas when farmland preservation is the goal.

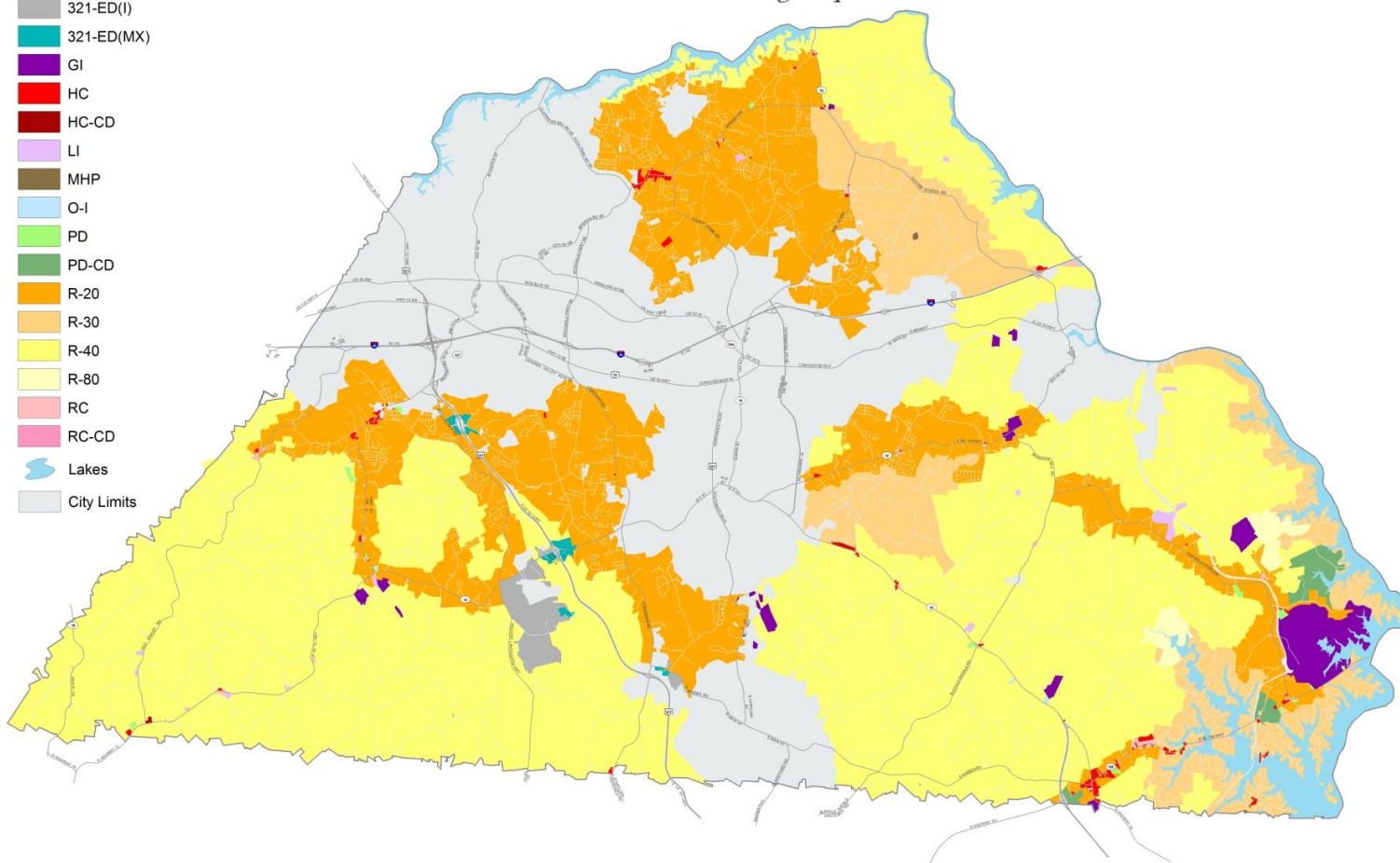
In lieu of a cluster subdivision, a developer may chose to construct a conventional subdivision. The UDO also requires permanent open space for conventional subdivisions, based upon a formula of 2,500 square feet per dwelling unit. It is encouraged that buffers be provided where development abuts farmland which can be counted towards the subdivision’s open space requirements.



Catawba County
Unified Development Ordinance
Official Zoning Map
General Zoning Map

County Zoning

- 321-ED(I)
- 321-ED(MX)
- GI
- HC
- HC-CD
- LI
- MHP
- O-I
- PD
- PD-CD
- R-20
- R-30
- R-40
- R-80
- RC
- RC-CD
- Lakes
- City Limits



Plan Methodology

Catawba County began the development of its Farm & Food Sustainability Plan in April 2012, with financial support from the North Carolina Agricultural Development & Farmland Preservation Trust Fund. The Board of Commissioners endorsed a 20-member Working Committee to develop the Plan's specific recommendations and implementation partners. The Committee was comprised of individuals representing all phases of the agricultural "life cycle" (production, processing, distribution, preparation, and waste recovery) as well as education/outreach, medical, and food access/hunger relief and policy. Following is a list of the Working Committee members, their affiliation and the agricultural area they represented.

Production	Clarence Hood, Agricultural Advisory Board (AAB) Chair Dave McCart, AAB Vice-Chair Ken Arrowood, AAB Joe Devine, AAB Susan Proctor, AAB Jeff Elmore, AAB Jeremy Lee, AAB
Policy	Barbara Beatty, Commissioner
Policy; Production	Al King, Planning Board
Education/Outreach	Jeff Carpenter, Cooperative Extension Der Xiong, Hmong Demonstration Project Fred Miller, retired Cooperative Extension Director
Education/Outreach Promotions of Distribution, Processing, and Preparation	Nathan Huret, Economic Development Corporation
Education/Outreach; All phases of agricultural life cycle	John Brzorad, Lenoir Rhyne - Reese Institute for Conservation of National Resources
Production; Distribution	Tom Kenney, Foothills Conservancy
Distribution	Mike Burris, Merchant Distributors, Incorporated (MDI)
Education/Outreach; Production	Danny Montgomery, FFA Teacher, Bunker Hill High School
Public Health; Distribution; Food Access/Hunger Relief	Kristie Gilbert, County Schools Child Nutrition
Production; Distribution; Education/Outreach	Julie Lehmann, Conover Farmer's Market
Medical / Public Health; Distribution	Martha Green, Catawba Valley Medical Center

The Working Committee held its first meeting on April 19, 2012. At its meeting, the Committee was educated on the goals of the Farm & Food Sustainability Plan and conducted an exercise aimed at

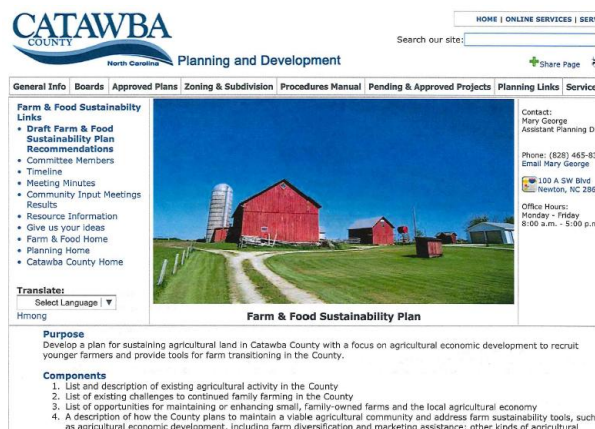


obtaining input on successful agricultural programs/ideas in the County and statewide that could be explored further and other partners to engage in the planning process.

At the Committee's next two meetings, members were educated about agricultural statistics specifically for Catawba County and national trends in agriculture from two consultants who have subject matter expertise in these areas: John Bonham, John Bonham Consulting; and Quint Redmond, TSR Agristruction-Agriburbia. The Committee also learned about existing agricultural programs in the County from Jeff Carpenter, Cooperative Extension Director.

The next step in the planning process was obtaining input from citizens about key issues affecting agriculture in the County. This step was critical in assisting the Working Committee in the development of its Plan recommendations. Three community input meetings were held in July 2012 at County high schools which have Future Farmers of America programs: Fred T. Foard, Bandys and Bunker Hill.

In total, there were over 100 participants in the community meetings who provided over 800 ideas about encouraging trends, limitations and opportunities to explore relative to enhancing agriculture and promoting local food. The next section, "Key Issues" details the input received from these meetings.



The Working Committee used this input and other ideas received on the Farm & Food Plan web site to begin developing the Plan's recommendations. Over the next 7 months, the Committee met to prioritize feedback received from the meetings; and develop guiding principles, strategies and specific action items. The Committee also identified community organizations that can either lead or serve a supporting role in implementing the individual action items. Finally, the Committee prioritized each of the action items into short (0-2 years), mid (2-5 years) and long-

range (5+ years) timeframes for implementation. The specific Plan action items are detailed in the section titled "Plan Recommendations."

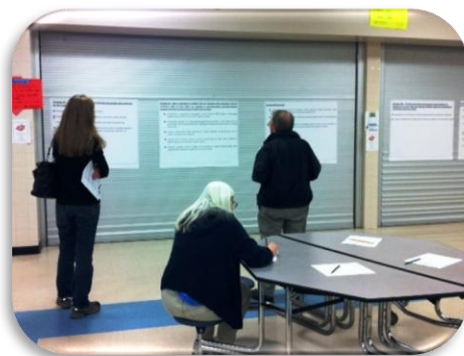
Upon completion of the draft recommendations, individual Committee members conducted outreach to the various community organizations tasked with implementing specific action items. Meetings were conducted with the school superintendents from the three systems, the Catawba Valley Community College president, municipalities' managers, Economic Development Commission, Chamber of Commerce, Western Piedmont Council of Governments, and the Farm Bureau. In doing so, it helped



ensure that there was community support for the Plan and commitment from those entities to either take the lead or be responsible for assisting in implementing the Plan's recommendations.

In March 2013, the Working Committee sponsored another series of community meetings at the three highs schools for citizens to review the Plan's recommendations and receive additional input. Approximately 40 citizens attended and provided their feedback on the Plan. In order to help citizens digest the Plan's 66 action items, a color-coding system was used. The 66 action items were categorized into five main areas:

- Education – program and activities aimed at engaging and increasing the knowledge and skills of farmers, consumers, and youth through outreach activities such as demonstration events, school gardens and distance learning opportunities for high school students.
- Farmland Preservation/Farm Transition – programs and activities aimed at maintaining existing farmland, supporting current farmers, and ensuring the recruitment of the next generation of farmers through activities like estate planning, workshops, mentoring/internship programs, and advocating for maintenance/establishment of favorable policies related to agriculture.
- Advancing Traditional Agriculture – programs and activities aimed at equipping farmers with the resources necessary to support the continued viability of our established agricultural enterprises such as dairy, cattle, poultry, and row crops.
- Alternative Agricultural Enterprises – programs and activities aimed at supporting the most promising alternative crops and enterprises such as small-scale fruit and vegetable production, agri-tourism, and the exploration of value-added processing facilities.
- Local Foods – programs and activities aimed at developing a reliable supply of locally produced fruits, vegetables, and meats, developing systematic connections between producers and local institutions like schools, hospitals, and restaurants, and helping citizens make the connection between local foods and nutrition.



Attendees were also asked to provide their contact information if they were interested in participating on the implementation committee for that specific plan category. Four individuals expressed their interest to assist in several areas. The comments received from this community review are included in Appendix B.

The Working Committee, at its April 2, 2013 meeting, reviewed the input received from the community review meetings and made some minor language edits to the existing action items to incorporate



comments received at the meetings. The Committee then officially recommended the Plan to the Board of Commissioners for consideration of adoption.

Subsequently, the Board of Commissioners received the Plan at its April 15, 2013 meeting. A presentation on the overview of the Plan process and recommendations was made by members of the Working Committee. The Board of Commissioners then unanimously adopted the Plan and accepted responsibility for ensuring implementation of the action items in the Plan where the lead responsibility has been specifically assigned to County departments or agencies.



Key Issues

The goal of Catawba County's Farm & Food Sustainability Plan is to develop a series of action items that can be implemented by community partners to address the unique issues affecting agriculture in the County. In order to obtain citizen's ideas on key issues to address in the Plan, the Working Committee sponsored a series of initial community input meetings in July 2012. Those in attendance were asked the following questions relative to enhancing agriculture and promoting local foods:

- **What are encouraging trends?**
- **What are the limitations?**
- **What opportunities should be explored?**

Following is a synopsis of the comments received:

ENCOURAGING TRENDS:
Demand for local food is increasing
Increases in commodity and fuel prices are encouraging local food consumption
Public awareness of local food and farming issues is increasing
Local food distribution is increasing through small venues such as farmers markets, community supported agriculture (CSA) and small scale/curbside farming
Small farms are cooperating with one another
Schools are increasingly focused on providing students with opportunities to learn about agriculture and health
There are many policies in place that support local food production and many groups advocating for local farmers
Farming in the region is changing: the number of small farms is increasing; crop diversification is on the rise, the number of broiler operations is increasing, livestock management is changing; focus is shifting to niche markets
New technologies enable farmers to share information, promote themselves, and connect directly with consumers

LIMITATIONS:
Producers do not have access to the infrastructure and equipment necessary to process and store products. In particular, value-added processing facilities (such as slaughter houses) are needed



The supply of adequate labor cannot meet the demand for farm labor
A disconnect exists between large distributors and small farmers due to product inconsistency, limited variety, small volume, and coordination issues. Therefore, only small-scale distribution channels (such as farmers markets) are available to local farmers. There is also no information for producers when it comes to the demand of the market
There is not enough demand for local products
Some policies inhibit small farmers from competing with large farmers, such as USDA inspection requirements, GAP Certification, and the PUV process
Public awareness regarding agricultural issues hinders the production and consumption of local foods
Farmers are not taking full advantage of technology (like social media and new tools)
Agriculture and health education are inconsistent and insufficient
Input prices are increasing, profits are low, and land is decreasing in value
It is increasingly difficult to start a farm from scratch; urban expansion is decreasing available land; young people are disinterested in farming; loans and other forms of financial support are not readily available
Other issues that farmers deal with: short growing season, lack of good soil, water availability, seed types are getting more expensive, and a fluctuating market
Development is increasingly infringing on farmland

OPPORTUNITIES TO EXPLORE:

Marketing: Market local products to local individuals and businesses as a way to improve the local economy and keep local money here

Processing: Increase availability of processing and value-added facilities (commercial kitchens, slaughter houses, etc.)

Distribution: Focus on creating systemic connections between farmers and institutions (restaurants, distributors, etc.) and encourage cooperation and collaboration among local farmers in order to meet local demand.

Government Assistance Programs/Tax Relief: Limit cumbersome policies that discourage farming and increase awareness/education efforts to make sure farmers are aware of the services that are available to them



Mentoring: Develop a mentoring program that will help older farmers retire and transition in new farmers while also raising awareness of farming practices among younger generation

Educate Kids: Increase the presence of agriculture in school curriculum at many levels to increase students' awareness and appreciation of farms and key issues in the agriculture industry. Examples: student to farm day, farmers visit schools, school gardens, cooking with local food classes, taste tests, etc.

Educate Farmers: Teach farmers about the usage of pesticides, organic production, new technology, and services available to farmers

Educate Consumers: Increase understanding of agriculture, gardening, and cooking through info sessions, gardening classes, taste tests, cooking classes, etc.

Local Food Co-ops/CSA/Community Plots: Assist in coordinating the collaboration and cooperation of smaller farms to meet demands of larger organizations. Examples: create shared website for selling/marketing, develop shared equipment and shared farming programs, and serve as central resource for land availability, crops needed, etc.

Grant Sources: Help raise awareness of existing federal and state grants as well as increasing the number of grants distributed by local private companies. Also, host grant application workshops

GAP Certification: Expand local training, locate certification personnel locally and subsidize cost of certification

Policy/Regulation: Reduce eligibility for PUV, decrease acreage requirements, and limit development at the expense of farmland

The input received from the community meetings was key for the Working Committee to develop the Plan's action items and identification of community partners. The starting off point for the Committee was the "Opportunities to Explore." Without the wealth of ideas from the community input meetings, the Plan would have not had the breadth of recommendations and support to help move agriculture forward in the County. For a full listing of comments received at the Farm & Food Plan community input meetings, refer to Appendix A.





Plan Recommendations

The Working Committee developed the Plan recommendations over a period of seven months using input received from the community meetings. The Plan recommendations were divided into 3 “P”s – Policy/Regulation, Programs and Projects.

The **Policy/Regulation** recommendations are actions aimed at promoting agriculture through goals identified by the local governments in the County. These goals are then translated into development ordinances or promotion of the goals to other entities. The **Program** recommendations are action items that are divided into two categories: education and partnerships. Education program recommendations were developed specifically for the public, farmers and children/schools. Partnership programs were identified between farmers and other farmers, institutions and the community. The **Project** recommendations identify infrastructure to be constructed which will help support agriculture, either to market farm products or help new farmers begin farming. In order to evaluate two key project recommendations: a share-use processing facility and an incubator farm, feasibility studies were conducted by consultant John Bonham. These are included in Appendix C and D, respectively.

Policy/Regulation Recommendations

Guiding Principle: *Create a business-friendly environment for agriculture by adopting local policies/regulations that support farms and farm-related businesses while playing an advocacy role at the State and National level.*

Strategy #1: Promote the present-use tax valuation program authorized under North Carolina General Statutes. The present-use tax valuation program is one of the most important farmland preservation tools available to farmers. The benefits of this program need to be promoted to the farming community.

ACTION ITEMS

Short-Term (0-2 years):

- A. Review the General Statutes and identify areas of concern within the present use program requirements. Seek clarification regarding issues not specifically addressed in the General Statutes from the Department of Revenue, the authoritative State agency for the present-use tax valuation program. Relay information to County Board of Commissioners for consideration of inclusion in its legislative agenda.

Implementation Responsibility: Farm Bureau



Supporting Organizations: Tax Office, Agricultural Advisory Board, Cattlemen's Association and Carolina Farm Stewardship

- B. Prepare public information on the qualifying program criteria and application process for the present-use program. Distribute this information through handouts, County & municipal websites, other relevant websites, articles included in various newsletters sent to the farming community, and presentations to agricultural interest groups.

Implementation Responsibility: Tax Office

Supporting Organizations: Cooperative Extension, Agricultural Advisory Board, and Farm Bureau

- C. Monitor issues of eligibility and participation in the present-use program and seek clarification as needed.

Implementation Responsibility: Farm Bureau

Supporting Organizations: Cooperative Extension, Tax Office and Agricultural Advisory Board

Strategy #2: Evaluate local zoning regulations and other development-related policies/regulations to support farming and agri-tourism and propose modifications and additions as needed. Under North Carolina General Statutes, bona-fide farms are exempt from county zoning regulations. Typically, agri-tourism activities conducted on the farm are exempted but not other support businesses. In addition to land-development regulations, other policies which encourage urban sprawl and put development pressures on prime farmland should be evaluated.

ACTION ITEMS

Mid-Range (2-5 years):

- A. Continue to review the County's Unified Development Ordinance (UDO) and recommend amendments that support agriculture and farm-related businesses. These may include:
 - the allowance of hobby farms, which would permit an outbuilding on property less than 10 acres without a house,
 - reduction in setback requirements for veterinarian services,
 - clarification of agri-tourism activities,
 - solar farms, and
 - support businesses for agriculture in rural areas.



Implementation Responsibility: Planning, Parks & Development

Supporting Organizations: Agricultural Advisory Board, Farm Bureau and Chamber of Commerce

- B. Continue to review and revise municipal planning regulations to encourage “Agriburbia” style developments, allow roadside stands for produce, and other agricultural support businesses.

Implementation Responsibility: Municipalities

Supporting Organizations: Agricultural Advisory Board, Farm Bureau and Chamber of Commerce

- C. Continue to pursue economic development opportunities with municipalities on undeveloped land served by infrastructure to preserve prime farm land where infrastructure is not available.

Implementation Responsibility: Planning Parks & Development, Municipalities

Supporting Organizations: Economic Development Corporation, Agricultural Advisory Board and Farm Bureau

- D. Evaluate incentives for businesses to build in areas of existing development or to re-use vacant buildings rather than initiating construction on rural agricultural land.

Implementation Responsibility: Board of Commissioners and Municipal Councils

Supporting Organizations: Economic Development Corporation

- E. Incorporate into existing planning tool the evaluation of impacts of water and sewer line extension projects when proposed to be constructed in areas of prime farmland.

Implementation Responsibility: Utilities & Engineering and Municipalities

Supporting Organizations: Planning, Parks & Development, USDA/NCDA and Soil & Water Conservation District and NRCS

- F. Conduct Cost of Community Services study to determine the average fiscal contribution of current land uses within the County (residential, commercial, industrial, agriculture/open land) and compare revenues generated to service and infrastructure demands.

Implementation Responsibility: NC State University



Supporting Organizations: Cooperative Extension, Planning, Parks & Development, Tax Office, Agricultural Advisory Board, USDA/NCDA, Western Piedmont Council of Governments and Municipalities

Long-Term (5+ years):

- G. Prepare an agricultural policy and regulatory handbook to keep farmers informed about land-use related regulations, NC Building Code and Environmental Health requirements.

Implementation Responsibility: Planning, Parks & Development

Supporting Organizations: Tax Office, Public Health, Utilities & Engineering, USDA/NCDA, Farm Bureau, NCDENR, Corps of Engineers and Municipalities

Strategy #3: Establish economic development initiatives that promote and market agriculture and agri-businesses within the County. With receipts from farm sales exceeding \$50 million annually in Catawba County, agriculture is a viable business that should be supported and promoted.

ACTION ITEMS:

Short-Term (0-2 years):

- A. Actively promote the re-use of buildings in the municipalities as a priority over new construction on prime farmland in rural areas outside of growth corridors.

Implementation Responsibility: Municipalities

Supporting Organizations: Economic Development Corporation, Chamber of Commerce and lending institutions

- B. Appoint a person with farming/agricultural background to the Economic Development Corporation Board of Directors to have input on economic development policies and activities relative to agriculture.

Implementation Responsibility: Board of Commissioners

Mid-Range (2-5 years):

- C. Establish the function of promotion and marketing of Catawba County for new and expanded food-related businesses and agri-businesses (ex. farm supply, equipment dealers, grain storage infrastructure). Included with this promotion activity would be consideration of incentives for existing agri-businesses wanting to expand.



Implementation Responsibility: Economic Development Corporation

Supporting Organization: Chamber of Commerce

- D. Continue promotion of opportunities for farmers to actively participate in agricultural-related activities at or in partnership with the Eco-Complex. Evaluate the feasibility of development of greenhouses, high tunnels, organic farming, value-added businesses, public/private agricultural-support businesses and an incubator farm to provide additional production opportunities in the County.

Implementation Responsibility: Utilities & Engineering

Supporting Organizations: Cooperative Extension, Planning, Parks & Development Economic Development Corporation, Farm Bureau and Farmers Market

Strategy #4: Establish funding support for developing and sustaining agricultural-based programs/projects. In order to implement components of the Farm & Food Sustainability Plan, it will be necessary to identify funding sources, potentially including grants from public or private sources or a revenue stream within the County or municipalities.

ACTION ITEMS:

Short-Term (0-2 years):

- A. Consider creating a line item in the County's budget to support agricultural programs and secure easements. This funding could be supplemented by utilizing present-use valuation roll back taxes and could help leverage other State and Federal grants to help preserve farmland in the County. (For a three-year period from 2009 to 2011, there was a total of \$78,912 of roll-back taxes with an annual average of \$26,304.)

Implementation Responsibility: Board of Commissioners

- B. Establish the function of promotion of fruit and vegetable production in the County within Cooperative Extension. This function should include:
- providing leadership for a thriving educational program on commercial production, pest management, variety selection, sustainable production practices and all other aspects of fruit and vegetable production;
 - facilitating Good Agricultural Practices (GAP) training and other technical assistance/training needs for producers;
 - developing a strong 4-H/youth component to educational programming for fruit and vegetable production so as to recruit new producers to the industry;



- working with growers and coordinate with brokers, restaurants and other consumers to identify crop needs and distribution logistics;
- evaluating a county-wide institutional food buying program supporting local food purchases; over-seeing the development of a community food assessment once a thriving fruit and vegetable market is established. The assessment would identify gaps in the local food chain and educates citizens and farmers on a safe and secure food system; and
- potentially providing staff support for a local food policy board whose mission would be to provide connections between food, health, economic development and the agricultural community.

Implementation Responsibility: Cooperative Extension

Supporting Organizations: Catawba Valley Community College, MDI and Farmers Markets

Mid-Range (2-5 years):

- C. Incorporate technical grant writing into current positions within appropriate departments and agencies. These staff will identify, write and project manage grants to fund programs identified in this Plan.

Implementation Responsibility: Western Piedmont Council of Governments

Supporting Organizations: Cooperative Extension, Planning, Park & Development, Schools/School Board(s), FFA Teachers, and Interns

Strategy #5: Advocate for farm-friendly local, state and national agricultural policies.

Policies set by local boards and state and federal government can have adverse effects on Catawba County farmers, agri-business owners and agri-tourism operators. Local elected officials can advocate for beneficial policies which help to promote and enhance agriculture at the local level as well as throughout the State.

ACTION ITEMS:

Short-Term (0-2 years):

- A. Consider adopting a policy of supporting and incorporating agricultural education (both active and passive) in all grade levels of the school systems through the following:
 - Requiring the “Exploring Agricultural Science” course for all middle school students. This course helps middle schools students understand the impact agriculture has on society and their own lives.



- Expanding vocational agricultural programs (including the Agri-science course) in the high schools to help students interested in pursuing a career in agriculture have the education and tools necessary to either continue their education or begin a farming business.
- Establishing the function of grant-writing to research and secure grants for school greenhouses, FFA programs, and other agricultural education programs.

Implementation Responsibility: Schools/School Boards

Supporting Organizations: Catawba Valley Community College, FFA Teachers and Farm Bureau

Mid-Range (2-5 years):

- B. Proactively advocate for agricultural-related State and National programs and policies that support farming and agri-businesses.
 - In particular support for continued funding of agricultural support programs such as the North Carolina Agricultural Development & Farmland Preservation Trust Fund should be a priority.
 - Lobby legislators to relax USDA sales of non-perfect food items which will help stimulate additional revenue for farmers.

Implementation Responsibility: Farm Bureau

Supporting Organizations: Agricultural Advisory Board, USDA/NCDA, Farmers Markets and Cattlemen's Association

- C. Work with the North Carolina Department of Transportation to address public safety issues on roads in farming communities. This could include reduced speed limits, signage for tractor traffic, or road surface widening to accommodate agricultural equipment.

Implementation Responsibility: Planning, Parks & Development and Municipalities

Supporting Organizations: USDA/NCDA, Farm Bureau

- D. Study the opportunities and threats related to utilization of cost-effective reliable water sources for crop production, especially fruits and vegetables, to make farming more viable. This could include construction of farm ponds, regional irrigation-sharing, a water rights policy, etc.

Implementation Responsibility: Natural Resource Conservation Service



Supporting Organizations: Cooperative Extension, Planning, Parks & Development, Utilities & Engineering, Agricultural Advisory Board, USDA/NCDA, Western Piedmont Council of Governments and SWCD

Long-Term (5+ years):

- E. Advocate that the North Carolina Ecosystem Enhancement Program (EEP) expand its protection program to include bottomlands of farmland and other prime farmland areas. Identify farmers willing to participate in the EEP to protect of farmland through a conservation easement.

Implementation Responsibility: Farm Bureau

Supporting Organizations: USDA/NCDA

Program Recommendations

Guiding Principle: Develop and implement a wide variety of programs to educate and facilitate partnerships with the public, youth, farmers, and institutions/businesses to promote agriculture and local foods.

Education – Public

Strategy #6: Communicate what local foods are available, where to get them, and how to use them. Information about the abundance of locally-raised food available in the Western Piedmont region should be readily accessible to the public.

ACTION ITEMS:

Short-Term (0-2 years):

- A. Contribute information on the availability of local foods to existing websites (Foothills Fresh, NC Farm Fresh, etc.) and social media so citizens can easily locate specific types of foods and markets based on day of the week or location. Make suggestions regarding the ability for citizens to sign up for notifications / newsletters based on their preference for food type, market location, etc. Include a portal in the website for institutions and chefs to connect with local producers. Include links from County & municipal websites to these pages.

Implementation Responsibility: Farmers Market

Supporting Organizations: USDA/NCDA Marketing Division

- B. Gather information from farmers and farmer's market patrons regarding 1) the foods that people do not know how to use and 2) the best way to support people trying new foods. Then launch a program that addresses the identified gaps and encourages the public to buy foods they may not know how to cook.



Implementation Responsibility: Farmers Market

Supporting Organizations: Cooperative Extension, MDI, IFH and other distributors

Long-Term (5+ years):

- C. Launch food-specific marketing campaigns (i.e. Catawba Valley Beef, Catawba Valley Tomatoes, etc.) based on regional cooperatives of farmers. In order to promote the specific foods, a countywide festival can be held which can support farmers growing the County's specific food items and educate the public about local foods.

Implementation Responsibility: Farm Bureau

Supporting Organizations: Cooperative Extension, Public Health, USDA/NCDA, Catawba Valley Community College, Schools/School Boards, MDI, Farmers Market and Catawba Valley Medical Center

Strategy #7: Educate the public on local farming and garden best practices for the region.

This can be accomplished by expanding existing demonstration areas and creating small-scale teaching gardens at local parks.

ACTION ITEMS:

Short-Term (0-2 years):

- A. Host gardening classes and demonstration events for different levels and in different seasons, incorporating both organic and conventional techniques. Utilize the Eco-complex as a resource in such programs.

Implementation Responsibility: Cooperative Extension

Supporting Organizations: Planning, Parks & Development, Schools/School Boards, NC A&T University, NC State University, WPCOG, Master Gardeners, HOPE (Help Our People Eat) Garden Project and Catawba Science Center

Mid-Range (2-5 years):

- B. Establish gardens at local parks, schools, libraries, and other public facilities.

Implementation Responsibility: Master Gardeners

Supporting Organizations: Cooperative Extension, Planning, Parks, & Development, Schools/School Boards, HOPE Garden Project and Catawba Science Center,



- C. Connect with local health initiatives, such as Eat Smart, Move More, to promote local food and gardening

Implementation Responsibility: Public Health

Supporting Organizations: Cooperative Extension and Catawba Valley Medical Center

Long-Term (5+ years):

- D. Establish website containing countywide information for the farming community and the public including listings of available resources, agri-tourism sites, locations for composting materials, sustainability groups, etc.

Implementation Responsibility: Cooperative Extension

Supporting Organizations: Planning, Parks & Development

Education – Children/Schools

Strategy #8: Raise a generation of children who are educated about agriculture and the nutritional value of local foods, are engaged in curriculum-based agriculture/garden programs and have increased access to locally-grown produce, regardless of where these children attend school public, private, or home-schooled).

ACTION ITEMS:

Short-Term (0-2 years):

- A. Incorporate an agricultural component to the Extreme STEM (Science, Technology, Engineering and Math) Tour for all 8th grade students to educate students about the technological aspects and careers in farming.

Implementation Responsibility: Catawba Valley Community College (Tracy Hall, Education Matters Executive Director)

Supporting Organizations: Schools/School Boards

- B. Incorporate locations for school gardens/greenhouses/tunnels in the construction of new schools and evaluate potential of adding gardens / greenhouses / tunnels to existing school sites.

Implementation Responsibility: Schools Boards



Supporting Organizations: Cooperative Extension, HOPE Garden Project and Master Gardeners

- C. Identify existing short video segments on various elements of farming that can be shown to all grade level students.

Implementation Responsibility: FFA Teachers

Supporting Organizations: Schools/School Boards, Farm Bureau, Farmers Market and Charter Communication

- D. Identify and/or develop distance learning opportunities for high school students to expand agricultural coursework opportunities.

Implementation Responsibility: Schools/School Boards (through Curriculum Coordinators)

Supporting Organizations: FFA Teachers

Mid-Range (2-5 years):

- E. Develop a Speaker's Bureau of agricultural specialists to be available to speak to various grade levels regarding the importance of agriculture and local foods.

Implementation Responsibility: Farm Bureau

Supporting Organizations: Cooperative Extension, School Boards, FFA Teachers, Farmers Market, Cattlemen's Association, Master Gardeners and Beekeepers Association

- F. Incorporate purchase of software which advances farming education when reviewing computer programs for the various grade levels.

Implementation Responsibility: Schools/School Boards

- G. Investigate developing a program offering internship opportunities for learning-based programs on farms. Issues to explore include:
 - Identifying regulations which prohibit children under 18 years of age from working on the farm
 - Preparing a master database that will link school students with farmers
 - Establishing a mentor program with high school students going to elementary schools to assist in the development of school gardens, education programs and promoting local foods in the schools
 - Establishing training programs for interested youth to teach most commonly utilized farm-related skills (tractor operation, grain drill & hay bailer skills, etc.)



Implementation Responsibility: Schools/School Boards (through internship coordinator)

Supporting Organizations: FFA Teachers and Farm Bureau

- H. Apply to the Food Corps program for Catawba County to become a service site to host a service member to provide nutrition education and to run hands-on gardening projects in schools.

Implementation Responsibility: Schools/School Boards

Supporting Organizations: Cooperative Extension, FFA Teachers and Farm Bureau

Strategy #9: Provide agricultural educational opportunities for teachers so in turn they can educate children about the importance of farming and local foods in the County.

ACTION ITEMS:

Short-Term (0-2 years):

- A. Request the Farm Bureau organization in Raleigh to provide local agricultural workshops for teachers, in particular for the “Ag in the Classroom” course for 3rd graders

Implementation Responsibility: Farm Bureau

Supporting Organizations: Schools/School Boards

- B. Explore establishment of agricultural education programs at all area high schools

Implementation Responsibility: Schools/School Boards

Supporting Organizations: Agricultural Advisory Board, FFA teachers and Farm Bureau

Education – Farmers

Strategy #10: Educate farmers on opportunities to diversify crops/enterprises on the farm and to promote estate planning and farm transition planning to sustain existing farms.

ACTION ITEMS:

Short-Term (0-2 years):

- A. Gather input on what is in demand by restaurants, institutions, etc. but is not available locally and communicate this demand to potential producers.



Implementation Responsibility: Cooperative Extension

- B. Develop and maintain an accurate set of enterprise budgets so prospective growers can identify the costs and potential returns from various fruit and vegetable crops. These budgets can be used to help producers select the crops that best fit their resource capabilities.

Implementation Responsibility: Cooperative Extension

Supporting Organizations: Catawba Valley Community College – Small Business Center

- C. Conduct estate tax education and planning conferences for local farmers to learn more about methods to minimize estate taxes and help keep their farming operations viable through the next generation.

Implementation Responsibility: Agricultural Advisory Board

Supporting Organizations: Foothills Conservancy and Catawba County Bar Association

Mid-Range (2-5 years):

- D. Provide education for growers on acceptable quality standards and expected/current prices for produce.

Implementation Responsibility: USDA/NCDA

Supporting Organizations: Cooperative Extension, Catawba Valley Community College and MDI

- E. Provide education on the various equipment and technology needed to produce the most promising agricultural enterprises by holding field days and other demonstrations.

Implementation Responsibility: Cooperative Extension

Supporting Organizations: USDA/NCDA and Catawba Valley Community College

- F. Develop a formal mentoring program so that potential farmers can gain experience and insight from current professional farmers.

Implementation Responsibility: Farm Bureau - Young Farmer and Rancher Program



Supporting Organizations: Agricultural Advisory Board, USDA/NCDA, Catawba Valley Community College, Schools/School Boards, FFA Teachers, and Foothills Conservancy

- G. Offer local GAP certification opportunities for growers interested in marketing to schools, hospitals, and institutions as a way of broadening the marketing opportunities for local farmers.

Implementation Responsibility: Cooperative Extension

Supporting Organizations: USDA/NCDA, Catawba Valley Community College and MDI

- H. Establish a program to identify recruits to enter or take over farming operations owned by farmers approaching retirement. These recruits may be found in FFA chapters, Community Colleges or as recent University graduates.

Implementation Responsibility: Farm Bureau

Supporting Organizations: Cooperative Extension, Agricultural Advisory Board Catawba Valley Community College, FFA teachers and Chamber of Commerce

- I. Explore offering a broad-based educational degree program on all aspects of agriculture. Also explore a 2-year transfer program to higher institutions. These programs should include:
- business planning
 - production/management of various crops
 - pest management principles
 - Marketing

Implementation Responsibility: Catawba Valley Community College (Beth Isenhour, Curriculum Supervisor)

Supporting Organizations: Schools/School Boards, FFA Teachers and Farm Bureau

- J. Establish network of younger farmers (under 35) and organize periodic gatherings throughout the year to encourage sharing of ideas and common goals as well access to technical presentations from NCSU and Cooperative Extension.

Implementation Responsibility: FFA Teachers and Farm Bureau – NCFB Young Farmers & Rancher program



Partnerships – Farmer with Farmer

Strategy #11: Identify available farmland and match willing farmers with people who have land.

ACTION ITEMS:

Short-Term (0-2 years):

- A. Identify small parcels (2-8 acres) that could be used by aspiring farmers to begin producing vegetables or other high value crops more suitable for smaller acreage.

Implementation Responsibility: Western Piedmont Council of Governments

Supporting Organizations: Foothills Conservancy, Soil & Water Conservation, GIS and Catawba Valley Real Estate Association

Mid-Range (2-5 years):

- B. Identify lands under conservation easements that prevent the areas along streams and the river from being farmed. Inquire if the easement holder would relax those rules to allow agricultural production on those lands.

Implementation Responsibility: Foothills & Catawba Lands Conservancies

- C. Establish shared farm equipment program to assist small acreage producers by minimizing the investment required to enter the business. This could include bedder/plastic/irrigation-laying implement that could be rented out by users for a fee similar to the no-till drill owned by Farm Bureau and rented to landowners.

Implementation Responsibility: Farm Bureau

Supporting Organizations: Cooperative Extension, Chamber of Commerce, NC A&T and local agri-businesses

Strategy #12: Investigate the possibility of creating a consortium willing to invest in small farms and farmers to help them attain their goals.

ACTION ITEMS:

Short-Term (0-2 years):



- A. Identify the availability of USDA guaranteed loan programs where USDA backs a conventional loan from a private bank

Implementation Responsibility: USDA

Mid-Range (2-5 years):

- B. Identify local legal expertise in the areas of financing, foreclosures and other legal issues relating to the acquisition of farmland.

Implementation Responsibility: Farm Bureau

Supporting Organizations: Foothills Conservancy and Catawba County Bar Association

Long-Term (5+ years):

- C. Identify local foundations that might provide financial support for new operations (ex. Alex Lee Foundation, CVCC – Small Business Center’s Kauffman Foundation grant)

Implementation Responsibility: Chamber of Commerce

Supporting Organizations: USDA/NCDA and Farm Service Agency

- D. Identify private banks as sources of capital, some of which are familiar with agricultural lending and are actively recruiting farmers as borrowers

Implementation Responsibility: Chamber of Commerce

Supporting Organizations: USDA/NCDA, Farm Service Agency and Carolina Farm Credit

- E. Identify sources of private venture capital and match them with suitable young producers

Implementation Responsibility: Chamber of Commerce

Supporting Organizations: USDA/NCDA, Farm Service Agency and Carolina Farm Credit

Partnerships – Farmer with Institutions

Strategy #13: Identify institutional demand and connect it with local supply and clarify expectations



ACTION ITEMS:

Mid-Range (2-5 years):

- A. Prepare demand side: Develop a program to match producers with institutions, wholesalers, and brokers, ensuring a robust marketing element, and coordinate the demands of institutions with producers (i.e. which items would MDI like to have produced locally?)

Implementation Responsibility: Chamber of Commerce

Supporting Organizations: Cooperative Extension, Economic Development Corporation, Catawba Valley Community College, Schools/School Boards, MDI, Catawba Valley Medical Center and IFH

- B. Prepare supply side: Explore the potential of creating cooperatives of farmers by food type (i.e. Catawba Valley Tomato Growers, etc.) to be able to meet institutional demand.

Implementation Responsibility: Farm Bureau

Supporting Organizations: Cooperative Extension, Catawba Valley Community College, MDI and Farmers Markets

- C. Develop a resource that creates different tiers of institutions related to expected product standards. For example, MDI may require higher quality produce but schools and hospitals may accept nontraditional/B-grade produce.

Implementation Responsibility: Cooperative Extension

Partnerships – Farmer with Community

Strategy #14: Develop and promote programs whereby the community can participate in and learn about farming/gardening opportunities in the County.

ACTION ITEMS:

Mid-Range (2-5 years):

- A. Identify community leaders to facilitate the development of garden plots in areas throughout the County.

Implementation Responsibility: Master Gardeners

Long-Term (5+ years):



- B. Develop a program for willing farmer(s) to open garden plots and offering use of existing resources (transplants, drip irrigation, education) to farm the land for personal use.

Implementation Responsibility: Farm Bureau

Supporting Organizations: Cooperative Extension

Projects Recommendations

Guiding Principle: In order for farmers to be successful, they need the necessary infrastructure to grow, harvest, process and market their products. The County will facilitate in the development of the necessary infrastructure which will enable farmers to sustain their business. In addition, the County will assist the school systems in developing infrastructure to produce fruits and vegetables as part of an educational program and to provide fresh foods in the schools.

Strategy #15: Develop or facilitate the creation of the necessary infrastructure to assist in the production, processing and distribution of agricultural food products.

ACTION ITEMS:

Short-Term (0-2 years):

- A. Participate in the Foothills Aggregation Center Feasibility Study that is being conducted for Gaston, Lincoln, Cleveland and Catawba counties. The purpose of the study is to gauge farmers' interest in utilizing the Center by supplying specific types of produce or other farm products for distribution and sale through a centralized marketing organization. Based upon the conclusions of the study, work with local farmers to utilize the Center to its highest potential. This can include advertising the facility and identifying local consumer entities such as schools, restaurants and other institutional buyers.

Implementation Responsibility: Cooperative Extension

Supporting Organizations: Planning, Parks & Development

Long-Term (5+ years):

- B. As fruit and vegetable production becomes more established in the County, facilitate the development of a retail store where local food products can be marketed. Depending upon the level of interest and quantity of food product generated, pursue a grant to conduct a feasibility study to develop a local aggregation center that will be located in Catawba County and serve the Unifour area (Catawba, Alexander, Burke and Caldwell counties).



Implementation Responsibility: Cooperative Extension, Economic Development Corporation, MDI and Chamber of Commerce

- C. Evaluate the interest within the County for utilizing a value-added commercial kitchen and a cannery/freezing facility. If interest is identified, evaluate potential locations such as schools, churches or old grocery stores that have the necessary facilities. Upon determining a location, execute agreements and begin advertising the availability of the facility.

Implementation Responsibility: Cooperative Extension

Supporting Organizations: Agricultural Advisory Board, Catawba Valley Community College, Farmers Market and Chamber of Commerce

- D. Determine interest among the County's existing animal processing enterprises and identify grant funding to upgrading facilities and equipment to meet State and Federal requirements for interstate sale and shipment of meat products.

Implementation Responsibility: Cattlemen's Association





Plan Implementation

Implementation Partners

As important are the specific action items of the Farm & Food Sustainability Plan, the implementation of the items are equally crucial to the success of the Plan. The Working Committee identified a series of community organizations that can serve in either a lead or supporting role to implement the Plan over the next 5+ years. Following is a list of the community partners:

Cooperative Extension	Carolina Farm Stewardship
Planning, Parks & Development	Chamber of Commerce
Tax Office	Municipalities
Public Health	North Carolina A & T
Utilities & Engineering	NC State University
Board of Commissioners	Western Piedmont Council of Governments
Economic Development Corporation	Master Gardeners
Agricultural Advisory Board	HOPE Garden Project
USDA/NCDA	Catawba Science Center
Catawba Valley Community College	Charter Communications
Schools/School Board(s)	Catawba County Bar Association
FFA Teachers	NRCS/SWCD
Farm Bureau	Catawba Valley Real Estate Association
Merchant Distributors Inc. (MDI)	Farm Service Agency
Farmers Markets	Carolina Farm Credit
Land Trusts	Catawba Valley Medical Center
Cattlemen's Association	NCDENR
Beekeepers Association	Corps of Engineers

On the following pages is an Implementation Matrix which identifies the agency to serve in the lead role (**L**) and those serving in a supporting role (**X**). The Matrix is broken down into the short (**S**), mid (**M**) and long-term (**L**) timeframes. These are defined as follows:

Short – 0-2 years

Mid – 2-5 years

Long – 5+ years





Action Item #	Timeframe (S, M, L)	Action Item	Cooperative Extension	Planning, Parks & Dev.	Tax Office	Public Health	Utilities & Engineering	Board of Commissioners	Economic Development Corporation	Agricultural Advisory Board	USDA/NCDA	Catawba Valley Community College	Schools / School Board(s)	FFA Teachers	Farm Bureau	MDI	Farmers Market	Land Trusts	Other Organization
1A	S	Review Statutes & identify areas of concern re: present use. Seek clarification from Dept. of Revenue on issues (both those addressed in Statute and those not addressed)			X					X					L				Cattlemen's Association and Carolina Farm Stewardship
1B	S	Prepare public information on qualifying criteria and application process for present-use tax program	X		L					X					X				
1C	S	Monitor issues of eligibility and participation and seek clarification as needed.	X		X					X					L				
3A	S	Actively promote the reuse of buildings within municipalities							X										Chamber of Commerce, Municipalities -lead and lending institutions
3B	S	Appoint a person with farming / agricultural background to EDC Board						L											
4A	S	Consider creating a budget line item for agricultural programs						L											
4B	S	Establish a staff function in Cooperative Extension to promote fruits/vegetables	L									X				X	X		
5A	S	Consider adopting a policy of supporting agricultural education in all grade levels of schools										X	L	X	X				
6A	S	Contribute information to existing websites and social media to promote local foods; incorporate local food notification service if possible									X						L		USDA/NCDA - Marketing Division
6B	S	Design programs to address gaps in the public's knowledge re: how to use certain local foods	X													X	L		IFH, all other distributors
7A	S	Host demonstration events & classes	L	X									X						North Carolina A&T, NC State University, WPCOG, Master Gardeners, HOPE Garden Project and Catawba Science Center
8A	S	Incorporate agriculture component to STEM tours										L	X						CVCC - Education Matters



Action Item #	Timeframe (S, M, L)	Action Item	Cooperative Extension	Planning, Parks & Dev.	Tax Office	Public Health	Utilities & Engineering	Board of Commissioners	Economic Development Corporation	Agricultural Advisory Board	USDA/NCDA	Catawba Valley Community College	Schools / School Board(s)	FFA Teachers	Farm Bureau	MDI	Farmers Market	Land Trusts	Other Organization
8B	S	Incorporate locations for gardens in new school construction and potential to add to existing schools	X										L						HOPE Garden Project; Master Gardeners
8C	S	Identify existing video segments to be shown in schools											X	L	X		X		Charter Communications
8D	S	Identify / develop distance learning programs for high school students											L	X					
9A	S	Request State Farm Bureau to provide local teacher workshops											X		L				
9B	S	Explore establishment of agricultural programs in all high schools								X			L	X	X				
10A	S	Gather info on produce demand by restaurants, institutions, etc. that isn't being met locally	L																
10B	S	Develop enterprise budgets for growers	L									X							CVCC - Small Business Center
10C	S	Conduct estate tax education & planning classes / conferences								L								X	Catawba County Bar Association
11A	S	Identify small parcels for fruit/vegetable production																X	Soil & Water Conservation, GIS, WPCOG - lead , and Catawba Valley Real Estate Association
12A	S	Identify USDA-guaranteed loan programs									L								Farm Service Agency
15A	S	Participate in Foothills Aggregation Center Feasibility Study	L	X															
2A	M	Continue to review UDO to identify amendments that support agriculture and farm-related businesses		L						X					X				Chamber of Commerce
2B	M	Continue to review and revise municipal regulations to support agriculture								X					X				Chamber of Commerce and Municipalities - lead
2C	M	Pursue economic development opportunities with municipalities on land served by infrastructure to preserve prime farmland where infrastructure is not available		L					X	X					X				Chamber of Commerce and Municipalities - co-lead



Action Item #	Timeframe (S, M, L)	Action Item	Cooperative Extension	Planning, Parks & Dev.	Tax Office	Public Health	Utilities & Engineering	Board of Commissioners	Economic Development Corporation	Agricultural Advisory Board	USDA/NCDA	Catawba Valley Community College	Schools / School Board(s)	FFA Teachers	Farm Bureau	MDI	Farmers Market	Land Trusts	Other Organization
2D	M	Evaluate incentives for agri-related building re-use / infill development.						L	X										Municipalities - co-lead
2E	M	Incorporate into existing planning tool a method of evaluating impacts of water sewer line extension on prime farmland		X			L				X								Soil & Water Conservation District, NRCS, Municipalities - co-lead
2F	M	Conduct a Cost of Community Services study.	X	X	X					X	X								Western Piedmont Council of Governments, Municipalities, NC State University - lead
3C	M	Establish the function of promotion and marketing of food-related business and agri-business							L										Chamber of Commerce?
3D	M	Continue promotion of opportunities for farmers to participate/partner at Eco-Complex and exploration of opportunities to develop agricultural-support industries	X	X			L		X						X		X		
4C	M	Incorporate grant writing into current positions within appropriate agencies	X	X									X	X					Western Piedmont Council of Governments – lead and Interns
5B	M	Advocate for farm-friendly State and National programs (like relaxing USDA sales of imperfect foods)								X	X				L		X		Cattlemen’s Association
5C	M	Work with NCDOT to address public safety issues in farming communities		L							X				X				Municipal Planning Departments - co-lead
5D	M	Study cost-effective and reliable water sources for crop production	X	X			X			X	X								Western Piedmont Council of Governments, SWCD and NRCS - lead
7B	M	Establish new gardens / expand existing gardens at parks, libraries, on other County lands	X	X									X						Master Gardener - lead, HOPE Garden Project and Catawba Science Center
7C	M	Connect with local health initiatives to promote local food consumption & gardening	X			L													Catawba Valley Medical Center
8E	M	Develop a Speakers Bureau to speak at schools	X										X	X	L		X		Cattlemen’s Association, Master Gardeners and Beekeepers Association



Action Item #	Timeframe (S, M, L)	Action Item	Cooperative Extension	Planning, Parks & Dev.	Tax Office	Public Health	Utilities & Engineering	Board of Commissioners	Economic Development Corporation	Agricultural Advisory Board	USDA/NCDA	Catawba Valley Community College	Schools / School Board(s)	FFA Teachers	Farm Bureau	MDI	Farmers Market	Land Trusts	Other Organization
8F	M	Incorporate purchase of agriculture-based software											L						
8G	M	Investigate internships opportunities for learning-based farm programs	X										L	X	X				
8H	M	Apply to Food Corps to become a service site	X										L	X	X				
10D	M	Provide education on acceptable quality standards	X								L	X				X			
10E	M	Provide education on types of equipment and technology needed to produce most promising agricultural enterprises	L								X	X							
10F	M	Establish formal mentoring program to connect prospective future farmers with current professional farmers.								X	X	X	X	X	L			X	
10G	M	Establish GAP certification training	L								X	X				X			
10H	M	Establish program to match younger farmers with farmers transitioning out of the trade to ensure farm continuity	X							X		X		X	L				Chamber of Commerce
10I	M	Explore offering a broad-based educational degree program on all aspects of agriculture. Also explore a 2-year transfer program to higher institutions										L	X	X	X				
10J	M	Establish a network of younger farmers	X											X	L				Farm Bureau - Young Farmer & Rancher Program
11B	M	Identify conservation lands and promote agricultural production																L	
11C	M	Establish shared farm equipment program	X												L				local agri-businesses, NC A&T, Chamber of Commerce
12B	M	Identify local legal expertise in the areas of financing, foreclosures and other legal issues													L			X	Catawba County Bar Association



Action Item #	Timeframe (S, M, L)	Action Item	Cooperative Extension	Planning, Parks & Dev.	Tax Office	Public Health	Utilities & Engineering		Economic Development Corporation	Agricultural Advisory Board	USDA/NCDA	Catawba Valley Community College	Schools / School Board(s)	FFA Teachers	Farm Bureau	MDI	Farmers Market	Land Trusts	Other Organization
13A	M	Develop a program to match producers with institutions, wholesalers, brokers, etc.	X						X			X	X			X			CVCC - Small Business Center, Catawba Valley Medical Center and IFH, Chamber of Commerce - lead
13B	M	Explore creation of farmers' cooperatives by food type to meet institutional demand	X									X			L	X	X		
13C	M	Develop resource on different tiers of institutions related to expected product standards.	L																
14A	M	Identify community leaders to facilitate garden plot program																	Master Gardeners - lead
2G	L	Prepare agricultural policy and regulatory handbook		L	X	X	X				X				X				NCDENR, Corps of Engineers, and Municipal Planners
5E	L	Advocate that the EEP expand program to bottomlands and farm areas									X				L				
6C	L	Launch food-specific marketing program	X			X					X	X	X		L	X	X		Catawba Valley Medical Center and Public Health - Eat Smart, Move More
7D	L	Establish website containing countywide info including listings of available resources, agri-tourism sites, and composting materials, etc.	L	X															
12C	L	Identify foundations to support new farm operations									X								Farm Service Agency and Chamber of Commerce - lead
12D	L	Identify private banks for agricultural lending									X								Farm Service Agency, Carolina Farm Credit and Chamber of Commerce - lead
12E	L	Match private venture capital with young producers									X								Farm Service Agency, Carolina Farm Credit and Chamber of Commerce - lead
14B	L	Develop garden plot / incubator farm programs with farmers	X												L				



Action Item #	Timeframe (S, M, L)	Action Item	Cooperative Extension	Planning, Parks & Dev.	Tax Office	Public Health	Utilities & Engineering	Board of Commissioners	Economic Development Corporation	Agricultural Advisory Board	USDA/NCDA	Catawba Valley Community College	Schools / School Board(s)	FFA Teachers	Farm Bureau	MDI	Farmers Market	Land Trusts	Other Organization
15B	L	Facilitate the development of a retail store where local food products can be marketed	X						X							X			Chamber of Commerce
15C	L	Evaluate interest for a value-added commercial kitchen and cannery/freezing facility	L							X		X					X		Chamber of Commerce
15D	L	Determine interest in upgrading existing animal processing enterprises and identify grant funding																	Cattlemen's Association - lead



Implementation Reporting

With the number of community partners working on this Plan, it is important to have an overall tracking system to note when action items are completed. This is important for several reasons. First, is to ensure that progress is being made on the implementation of the Plan. Secondly, since some action items must occur before others, the lead agency will need to know when it is time to begin working on their specific action item. For these reasons, a tracking system will be developed for partners to send in information relative to the progress of their action items. This tracking system will take the form of an interactive web site where community partners have access to input the status of their action item(s) and view information on the overall implementation of the Farm & Food Sustainability Plan. Also, the web site will be a convenient way to pull information together to report to various groups and boards on the status of the Plan's action items. The implementing partners will meet annually (at a minimum) to report on the status of implementation efforts and to ensure the necessary coordination between the various organizations.

Review/Update

As the Plan is implemented, there may be changing conditions which warrant an update to this Plan. If this occurs, the Working Committee may be gathered again to recommend changes. Regardless, being that this is a 5-year Plan it will be updated again in 2018. The updated Plan will include a status report of those action items completed to date, those items outstanding and any new trends that need to be pursued.

Funding Sources

There are many Federal and State programs which support agriculture and local foods. An excellent guide, "Resource Guide for Limited-Resource Farmers" was developed by the Conservation Fund which lists the various organizations, agencies, programs and services to assist farmers.¹⁸ Appendix E provides an overview of several of these programs. In addition to these programs, there are several specific Federal/State grants, private foundations and local sources that can be pursued to implement specific action items in this Plan. These are also included in Appendix E.





Appendices

Appendix A: Community Input Meetings – July 2012

Appendix B: Community Review Meetings – March 2013

Appendix C: Feasibility Assessment of a Shared-Use Agricultural Processing Facility in Catawba County, NC

Appendix D: Feasibility Assessment of a Farm Incubator in Catawba County, NC

Appendix E: Farmland Protection & Farm Viability Toolbox





Appendix A: Community Input Meetings – July 2012

BANDYS HIGH SCHOOL

JULY 12, 2012

WHAT ARE ENCOURAGING TRENDS?

- Financial support for new farmers
- Government: USDA/private lenders
- Farmers markets
- Local foods interest
- Niche markets (beef, eggs...)
- Producers advocating for the industry
- Youth interest in agriculture
- Biofuels interest
- Interest in Ag (This Plan!)
- Ag District
- Farmer's market
- Reduce tax for Ag land
- Co-op between farmers
- Hybrid crops – increasing soy beans
- Curb, farmers – small scale (corner) markets
- Mobile markets (fruit/veggies)
- More interest in modified/genetic organic foods
- High density small plot gardens
- Agri-burbia (replacement for golf courses)
- Want organic foods
- Farmers markets
- Co-op
- Slowing of farmland loss
- People interested in local grown produce
- More small farms
- Increase in healthy eating equals increase demand for fruit & vegetables
- People want to know where their food is coming from and what is in it
- More Ag Advocacy groups



WHAT ARE LIMITATIONS?

- Media advertisement for community meeting –radio, newspaper
- Limited land
- Not knowing the right representative
- Processors
- Working to build partnership – policy
- Market fluctuation



- Undercutting other farmers for capital/farmland
- Market for fresh food/meat
- Grant access
- Too much risk – crop insurance
- Getting to market
- Too much red tape – policy
- Lack of understanding from public
- Not enough local fruits & vegetables to meet demand
- Hard to get started in Ag – from scratch, land, experience, money, etc.
- Food safety/regulation issues with fruits & vegetables makes growing them difficult
- Might be difficult to get money
- Cumbersome regulations/or changes to keep up with
- Average age of farmer is increasing
- Death taxes/inheritance regulations
- Increase in contract farming
- Disconnect from family farm
- Farms/land isn't keeping growth pace with population
- General public & children lack of appreciation for agriculture
- Start up costs/investment for new producers
- Lack of land/availability
- Difficulties in qualifying for present use (length of ownership)
- Organic foods not always as attractive as fertilized
- Organic costs more labor intense
- Market in past not large for fruit & vegetables
- Present use acreage should go down – value of \$1,000 should stay & eliminate 3 year time period
- Liability
- No market for eggs & produce
- Pest control
- Transfer from one generation to the next
- Risk/reward
- Clearing house of information “One Stop Shop”
- Financing/venture capital start-up cost assistance
- Lack of adequate education
- Over “burdensome” regulations
- Short growing season – lack of good soils/rain
- Conventional vs. “organic/alterative” agriculture debate
- Livestock/animal slaughter facilities (lack of)
- Production schedule/planning fruit & vegetables limitations
- Labor
- Lack of understanding of potential economics
- Greenhouses (lack of)
- GAP certification



WHAT ARE OPPORTUNITIES THAT WE NEED TO EXPLORE?

- Model small vegetable gardens – school campuses
- Education – elementary, high school
- High intensity vegetable gardens – public owned land/facilities “underutilized”
- Farm to market – curb- farmers, schools, MDI, Sam’s Club, market restaurants
- Community plots – vacant plots/lots
- Market to food deserts – geographic distribution
- Capitalize on public awareness of improving quality of health through healthy eating
- Make the term “Green” school mean more than energy conservation
- Educate public on benefits of healthy local fields and foods
- Larger 4-H opportunities
- Co-op – so public could join; pay X dollars per month & get whatever is in season
- Adjust present use requirements if can prove land has been in agriculture
- Educate public on importance of food source and what it takes to be a farmer
- Need promotion – love your farmer; get people/drivers to pay attention to farm vehicles; move slower
- Need weekly article on importance of food production & road policies; widen roads but stripe or make larger shoulder (ex: Sherrills Ford Road)
- Work on local/state level to change federal laws that won’t allow for sale of non-perfect food (ex: eggs w/double yokes)
- Have a place like Shiloh in Iredell County (Amish)
- More FFA in school; younger kids interested in agriculture
- Grants for equipment availability
- Value-added products; canning vegetables
- Partnership with local grocer
- Advertising local foods
- Introduction of new technology to farmers
- Awareness of needs of availability
- Mentoring/educating new famers
- Programs to use farmland – matching willing; farmers with people who have land
- Greenhouse vegetables
- Continuing farmland preservation programs to be sure there is farmland to farm
- Value added/processing plant –produce & meat
- “Ag in the classroom” and others to educate the next generation – future careers
- Social media/technology
- Basic education for all ages kids to adults on where food comes from
- County Agriculture Day @ Fairgrounds
- Agriculture Career Day
- Community supported agriculture
- Redefine/improve regulations affecting agriculture enterprises
- Expand agriculture education to more schools & teachers – Ag in classroom
- Local animal processing facility
- Local foods marketing coop/facility (meats, crops, fruits, vegetables) (we have the customers)
- Children/youth interested in our County – interest in agriculture
- Internships on farms (youth or adults)



- Career opportunities on agriculture

OPPORTUNITIES IN-DEPTH DISCUSSION

Value – Added Facility

- Need meat processing facility. Closest beef is Mays in Taylorsville or Caldwell's in Lincoln County for pork
- County should explore grant possibilities of a private/public grant to build facility
- Brand Catawba County meat/produce
- Need central processing/marketing facility
- Promote programs like Sam's "Club of the Community" or encourage stores to have "Catawba" corner of products. Make list of stores with these programs
- Explore helping expand existing processing facilities and allow people to invest their money to promote a local business
- Explore local food possibilities with Sam's Club

Mentoring – old to young famers

- Getting more hands-on opportunity – "you got to live it"
- Trust building – Getting to know others first, personalities; one-on-one; honesty-being earnest to work ; willing to work hard
- Having one person go around (that is trusted in community) and learning the little "secrets" from older farmers.
- Connecting in local farm supply/areas to understand the importance of agriculture
- Attending educational meetings
- Cross training within trade
- Involvement of other agencies – i.e. – USDA

Awareness of Public

- DMV instruction book on how to drive with agriculture equipment
- School-age education
- Farm Day – example of what goes on at farm
- Health/organic push helps promote agriculture
- Know what is in food
- Focus on the farmer- paper articles

Education – Young People/Schools

- Agriculture in every school
- Educate teachers on what is available in agriculture area
- More participation in agriculture in the classroom and other similar programs



- Ag Awareness Month
- Take advantage of local opportunities , i.e. educational farms
- School system wide Ag Day for kids
- Take “farm” to schools
- Develop programs that are fun that kids want to participate in
- How to save money eating local
- Send flyers home with kids
- Highlight Ag in newspapers
- Some sort of Ag contest in schools – Farm-City Week or Ag Awareness Week
- Mass media video of local farms to show at schools

Local food Co-ops/CSA/Community Plots

- GAP Certification
- Managing entity – central facility
- Transportation
- Capital/funding – grants
- Central location
- Regional (Unifour)
- Scheduling – predictability
- Shared equipment



BUNKER HILL HIGH SCHOOL

JULY 24, 2012

WHAT ARE ENCOURAGING TRENDS?

- Desire by chains to support local foods
- Interest in farmers markets & local foods
- Changes in livestock management; managing grazing
- Food safety awareness
- Awareness of farm preservation tools such as Farm Trust
- Technology tools for promoting farming; i.e. websites, Twitter
- People want fresh food (vegetables, fruits & meat)
- Increasing awareness of food safety
- Economic downturn has people refocused on gardens
- More farmers markets – allows place to sell
- Agriculture classes are full (overflowing) at high school
- Health related classes also full at schools
- Development of wineries in area
- Upgrade of agricultural programs in high schools, i.e. new greenhouses
- Sentiment of supporting local farmers
- Awareness of nutritional value of foods
- New marketing options, i.e. warehousing
- Farmers markets
- Website information on area farms to obtain certain foods
- Organic food
- Research “Urban Farm” magazine for good suburban ideas
- Websites – carolinafarmstewards.org; asapconnections.org; urbanfarm.com
- Raising corn, beans or grain because need for cattle feed (as opposed to fruit/vegetable); market exists
- Fields being lost to development
- Community gardens
- Local foods in restaurants, hospitals
- Honey demand
- Interest in tailgate/farmers markets
- Locating sources of local foods
- Food safety concerns/response
- Specialized production (crops, animals, organic, etc.)
- Alternative energy – biodiesel, ethanol
- Increase commodity prices
- “Bad Publicity” travels faster and further now
- Government regulations/testing/record keeping
- Alternative fuels & engine issues
- Farmers markets



- Farm-to-table
- Policy that gives incentive to develop inside city limits; redevelopments
- Diversification on farms – different crops
- MDI – shippers
- Organic produce
- Wine & grapes



WHAT ARE LIMITATIONS?

- Labor
- Initial investment/cash flow
- Slaughter house for beef, chicken & pork (Cabarrus County, Taylorsville, Lincolnton)
- Processing facility – Do-It-Yourself; rentable (like Rutherford County or Asheville)
- Agricultural Extension used to help process seed for next year
- No home economic or garden classes at every school
- Rules not clear on organic production; sometimes not logical-i.e. treated fence post disallowed; organic status
- Family farms hard to survive
- Fruit/vegetables too labor intensive to harvest
- Need mentoring program to match existing farmers with young people wanting to get into farming
- Smaller families have smaller farms (not enough help)
- Production costs (energy)
- Weather and alternative planning (irrigation)
- Availability of land
- Taxes & regulations; increasing property taxes
- Complicated PUV process
- Lack of interest in agriculture; labor cost, knowledge
- An “uneducated” public regarding agriculture
- Public fear of agriculture – stereotypes, i.e. smell, pollutions etc
- Urban interface – consistency of product – MDI needs to know to promote
- Profit margins
- Policy, red tape- i.e. permits, regulations
- Animal waste disposal – not enough capacity to hold; knowledge to limit problem
- Market – farmers market equals minimal margin of market; serving only a small portion of population
- No processing plant to process food/meat
- Not enough profit
- Diversification at farmers market- can’t have everyone grow tomatoes
- Knowledge of agencies/partner that can help, i.e., NRCS, Soil & Water regarding waste disposal
- No local cattle sales
- Fear of commitment/government oversight
- Undercutting from super stores
- Farmers going into debt to be successful



- Urban development pushing out rural community
- Not enough teachers for students in agriculture classes
- Available land for farming (houses being built)
- Land under 10 acres being considered “developable” and not tax present use eligible
- Growing season is not year round
- High input prices for farmers (gas, fertilizers, etc.)
- Annexation of farmland – taxes increase
- Public has skewed view of what pesticides/spray –free vegetables/fruits & meat really means. Not possible – need limitations. Also farmers need education.
- Fair marketing – allow for farmers to sell direct to grocery stores
- Need more farmers market locations
- Ban being looked at to prohibit backyard gardens?
- Imposing regulations intended for large producers on small farms
- GAP certification necessary for schools etc.
- No general marketing plan or co-ops by farmers
- No large scale refrigeration, storage or processing
- Education’s focus on technology and business rather than vocational education
- Zoning restrictions
- Fewer farmers’ children want to farm; older members pass on and force younger to pay taxes
- Fragmentation of farmland amongst family members try to keep land and use it
- Higher cost of fresh food
- Not enough detail in health classes to make connection to fresh food
- Land value
- Seed types could be too costly
- Vegetables/fruit prices set too high in stores and hard to get into stores to market
- Historically, families no longer worked on farm after war; went to work in public jobs
- No work force to pick field crops (kids in neighborhood)
- Uneducated consumers
- Volume & variety – small farms have difficulty producing volume needed for “big” boys
- Availability of markets on differing schedules
- Lack of knowledge by consumers of food preservation technology
- 60 mile being local - unfair advantage
- Access to good farmland and financing for “new” farmers
- Lack of interest by new farmers due to economics
- Regulations – environmental
- Food safety issues – i.e. use of chlorinated irrigation
- Competition for labor

WHAT ARE OPPORTUNITIES THAT WE NEED TO EXPLORE?

- MDI – access for new market/larger scale market; creating beyond norms – i.e. value added product, local meat
- Education for community, children & adults; educating about misconceptions
- Curriculum not being utilized
- Conservation easements



- Opportunity to diversity
- Tree farms
- Use of technology, i.e. sending out electronic message that product will be ready in XX amount of days
- Lynn Sprague, Polk City and Jim Adkins, International Center for Poultry – speaking on garden commodities; consider both of these as speakers at annual Farm Education Seminar
- Help with GAP certification
- Sell local food to schools & prison
- Ag Ext should help farmers propagate seed for next year
- Educate folks on growing, cooking, storage & organic foods
- Internships
- Co-ops & farmers markets
- County Fair should go back to having chickens, canned goods and demonstrations
- Reduce present value regulation from 10 acres to 5 acres
- Educate public on agriculture
- Educate farmers on available resources
- Identify & explore grant sources; producers
- Production & management research
- “Local foods” interest
- Financially profitable to enter agriculture now?
- Expand marketing to metro
- Consider smaller networks, i.e. egg clubs, CSA’s
- Partnering with grocers; contract as exclusive grower
- Farmer mentor program & land transition
- Sell to school programs, prisons, hospitals, i.e. large public entities
- Need GAP Certification training
- Awareness of government assistance programs, i.e. cost share
- Consumer awareness of paying for what you get (pay more for quality)
- Hidden costs of not buying local & differing
- Quality of local
- Marketing to restaurants i.e. partner with them
- Seasonal marketing
- Open markets for people to sell; need more places
- Help farmers with GAP Certification
- Tie in of benefits of locally grown foods to health related classes (book-“Nourishing Traditions”)
- Have larger farms be open to allow people to come farm ¼ acre or more; resources are there; can be a co-op.; establish County program to do this
- Students – Farm Days; educate students through seeing what happens on farms
- Produce conglomeration facility
- Offer high school program to participate in farm labor
- Greenhouses to have year round production
- Season extension by producers
- Consider “Niche” marketing - ethnic cuisine
- Grant funded processing “portable” or co-op with food distributor as exclusive grower
- Examine subsidies and be flexible



- Cooperative agriculture retail store
- Educate public of what is grown locally, i.e. web page – must be updated!
- Recognize chains who support local
- School interns with farmers
- Expand agriculture program to all schools
- Foster good relations with legislators

OPPORTUNITIES IN-DEPTH DISCUSSION

Grant Sources – Needs?

- Grants to help fund processing plants, i.e. extraction of honey, processing meat
- RAFI – small grant source
- Funding for local food market/farmers market
- Funding for GAP certification so that farmers can sell to new market, i.e. schools, hospitals
- Funding to build co-ops & CSA
- Commitments from both sides, i.e. timeframe to keep up/maintain, keep going, as pay back
- Looking at not just local agencies, but private sectors
- Money would have to come from private sources so that farmers feel less control by government
- Grants focusing on medium acreage farms

Educate Public

- Educate growers/public on proper usage of insecticides/pesticides so pests are destroyed on meat/plants, food still organic if chemicals used at proper time (before fruit forms and proper time of year for cattle)
- Educate people on distance most food travels to get to table (usually 1500 miles), costly; should try to eat within their “food shed” (50-100 miles); distance requires more chemicals
- Educate public on canning/preserving food
- Getting a presence in grade schools (each quarter or year) by having MDI, farmers market & grocery stores to give presentation/demonstration
- Student-to-Farm Day so students can experience farm
- Have garden at schools – starting at elementary schools and going through high school; plant/water plants; pick fruit/vegetables (watch grow); cook & eat produce
- Taste home grown compared to shipped in produce that traveled long distance and is less fresh or contains preservatives
- Set up taste & general education demos in area business cafeterias & break rooms
- Try to partner with companies to cook/use locally grown food in cafeterias
- Community garden mentor program
- Farmer/student job mentor program
- Publicize master gardening program



GAP Certification

- Interest from MDI, Lowes, IGA, Galaxy for local produce
- Cost for certification; cost share/subsidy for certification
- Certification personnel located locally (CES, NCDA)
- More local training opportunities & held at appropriate times

Co-op/Large Farm Into Rented Farmettes

- Web site developed and other outreach (farmers markets, free papers, churches) to advertise farmers interested in making land available
- Allow FFA students the opportunity to learn/cultivate interest in agriculture
- School earthworm farms – take waste stream from cafeteria and paper to use; sell/promote to further programs in schools
- Restoration of old “share cropping” concept
- Have variety of plot sizes
- Value-added opportunities; have local center
- Evaluate re-use of old buildings for local centers
- Canneries – revive
- Initial grants to set up with farm opportunity initially for younger folks
- Equipment – sharing program; all pieces (planters, harvesters)
- Farmers may also have own equipment and can cultivate land for all
- County serve as central resource for land availability, crops needed (w/MDI), school land for educational farm

Rules/Regulations/Policies to be Addressed

- 1 year eligibility for present use value vs. current 3 year
- Estate planning needs longer transition for present use
- Support idea of reducing acreage requirement provided it is a “legal” farming opportunity
- Promote participation in agricultural district and related incentives
- Investigate feasibility of selling development rights to preserve farms



FRED T. FOARD HIGH SCHOOL

JULY 9, 2012

WHAT ARE ENCOURAGING TRENDS?

- Increased farmers market availability
- Farm-City/Chamber activities
- Rising energy costs encouraging local production
- Small educational farms
- Ag in classrooms
- AG District signage
- Environmental friendly, i.e. no GMO, organic
- Internships
- This meeting & the plan (convenient time/location)
- Farm fresh tour
- More awareness and interest in local agriculture
- Farmers markets
- Return to local
- Organic/natural growing
- People more health conscious
- Organic farming
- VAD
- Have farms
- Don't need to go to supermarkets –teach kids they can grow and make money
- More variety in crops/food products
- Better prices
- Small farms work together to sell gamut of products
- Hobby farms increasing; 5-7 acres
- More farmers markets
- New technologies available due to internet – can learn from others
- Publicity – newspapers covering more about farmers/farming
- People want more fresh food; farm to table
- Young, ambitious farmers – need to encourage them
- Agritourism farms
- Local buying, CSAS, U-pick
- Broiler operations
- Established & new farmers markets
- Square bale hay for horses
- Growing export opportunities
- Connection between nutrition & fresh food
- Consumers knowing source of food
- Biomass crops
- Organic foods



- Food processing cluster not recognized as part of agri-business
- Commodity process
- Local farmers markets
- Information availability
- Consumer awareness: food
- Technology

WHAT ARE LIMITATIONS?

- More intervention by government vs. help
- Lack of diversity in Ag education- high schools differ in quality of program
- Operating capital – have to be “rich” to farm
- Communication and neighborhood awareness of local agriculture
- Farmers unaware of social media and new tools
- Bucking trend of big government
- Supply and demand- limitations when competing with “big” suppliers
- Increase real estate values
- Nutritional value education
- Need to define “local”
- Access for producers to package and ship product
- People used to just buy canned food
- People buy from grocery and come to farmers market to browse
- USDA inspections
- Safe food GAP Certification
- Central processing facility needed
- People need education on how to prepare food
- Need stores to sell “box” of produce from 5-8 mile radius
- All stores should have local strawberries when in season (not shipped in)
- Could reduce farm tax credit needed from 10 acres to 5 acres
- Financial pressure to consolidate acreage
- Understanding what agriculture is
- Having adequate workforce
- GAP Certification
- Distribution of food other than farmers markets
- Funding for young farmers
- Unsure where to go to get help/resources
- Urban expansion into farm land
- New industry/biomass
- Incentives for restaurants/stores
- Organic food cost
- Organic production- pests etc
- Regulations – local/state/national
- Land cost
- Artificial depression of farm labor rates
- Affordable food and adequate for farmers



- Infrastructure – distribution and processing
- Fresh food not accessible to all
- Availability of capital for businesses and farmers
- Water availability
- Land availability/price/use
- Financing/capital
- Labor
- Government/corporate regulations
- Competing viewpoints on agriculture/segments
- Acceptance of various segments
- Education & training
- Can't find land to rent
- Money to help support farming
- Access to equipment
- Family land – can be sold; don't want to farm or know what can be done
- Need more local outlets to sell especially cattle
- Can't irrigate here; don't have large farm ponds
- Farm supply stores for specialized supplies
- Financial – need loans, other sources
- Need to address County regulations that limit agriculture or agriculture supported businesses – i.e. setbacks for animal hospital

WHAT ARE OPPORTUNITIES THAT WE NEED TO EXPLORE?

- Picture of farmer with farm
- Cooking booths/demos at markets
- Need to teach agriculture in schools (every student)
- Adjust property tax system to encourage farming
- Need increased cooperation between crop/livestock
- More internet usage
- More consumer tours
- Grants/funding
- Creation of “middle” man to connect farmers/consumers
- Funding for agriculture projects and competition
- Teach food preservation to young people
- Clearinghouse for funding opportunities
- Farmer mentor program
- Give/take blog for farmers in Catawba County
- Tolerance for non-important “cosmetic” issues
- Canning plant (i.e. Startown Cannery)
- Community/commercial kitchen
- Educate producers on how to package/sell product
- Internet opportunity
- Help farmers get GAP certified
- Help farmers adapt to find product that's feasible



- Educate public on healthy eating
- Give school children taste of vegetables (raw)
- Have one meal/month in schools of local foods
- Identify specific markets and match with specific sales stores in area
- Get word out on vegetables/meat purchasing opportunities
- County needs a program similar to “ASAP”
- Need facility like Pilot Mtn.
- Need “Just Save”
- Marketing
- Alternative funding for land acquisition
- Co-op: Processing/planting/harvesting/distribution
- Water use planning
- Education: youth
- Education: relationship building for agriculture & local government
- Meetings like this one
- Education – farmers, consumers & government
- Marketing assistance
- Value added farm products
- Regional supply chains
- Farmer business training (& technology)
- Connecting new farmers with experienced ones – mentoring
- Nutrition education in schools
- Incubator kitchen
- Community supporting each other – farmers support farmers
- Local foods in schools, hospital, prison, etc.
- Becap program – biomass crops
- Fuels for school program
- Youth in agriculture – becoming farmers
- Farm labor support to phase out unemployment
- Extend WIC to include elderly
- Federal subsidies to build agriculture infrastructure
- World class local greenhouse to avoid buying from Canada
- Local processing plant – fresher product
- Next generation of promoting farming as career field
- Newer technologies to improve efficiency
- Lab for school-age kids all through school years. Hands-on plus learn business end of it. Beyond “stereotype”.
- Get state funds to do agriculture for all schools to use
- Business starts with agriculture should get tax exemption like other new businesses being brought in
- Need kids to be more involved in agriculture - need in their heart
- Protect farmland from urban sprawl being fragmented
- Match up young farmers to others who may not be carrying on farming
- Coops like Mennonite communities
- NC State education- great resource- do presentations on newer techniques



- Programs for uniform products – help with education
- More farmers markets- pursue grant funds to establish
- Education – schools – students to farm, foods to schools
- “Local foods lunch Wednesdays”

OPPORTUNITIES IN-DEPTH DISCUSSION

Marketing – Process - Distribution

- Distributors use “Goodness Grows in NC” to find producers. Other states have their own groups.
- Move from commodity to branded products
- Incubator kitchens
- Demand that Charlotte Regional partnership recognizes Upper Valley Agri-Business
- Creating support network for mid-size farmers (50-500 acres)
- Encourage regional cooperatives
- Encourage Institutional Food House (IFH) to source locally
- Monitor performance food group acquisition for increasing local sourcing
- Tap into resources (on line) to connect farmers with restaurants (Farm Fresh; Realtimefarms.com; farmer profiled on products; restaurant can choose farmers – make connection)
- Find ways of using internet to connect producers and buyers (NC Farm Agriculture good list)
- Form co-ops so smaller farmers can group with others to produce/sell large quantities. Co-op would also educate farmers.
- Take abandoned building and open grading facility like Pilot Mtn. Can form co-op later if desired. Market veggies as “Catawba County Green Beans”.
- Need processing facility infrastructure for slaughtering and curing pork and chicken.
- Branding so these processing facilities can market under a Catawba County name (i.e. Bacon processing)
- Encouraging: people going back to wanting natural foods. Canning coming back for those growing vegetables
- Infrastructure huge limitations. Need canning/freezing facilities

Education –Kids-Farmers-Consumers

- Food production – children & adults
- Formal production/training – students/FFA
- Agriculture training/in-service for classroom teachers “Ag in Classroom”
- How to cook/prepare products
- Better appreciation for different philosophies in agriculture
- Watch Food, Inc.
- All media reports are bad news
- Train producers as ambassadors for the industry
- Education on GMO/technology for general public



- Plan education for smaller “niche” farms
- “Positive” newspaper articles on farms/farmers/operations
- Social media use for farmers
- Agricultural Education Center – open weekdays; farmers come teach/interact with visitors

Mentoring – Farmers’ Relations

- Teach agriculture in schools
- Bring students to farms
- Farm tours – various farms, different types
- Open communication
- Foster good will
- Good quality information
- Positive attitude
- Quit negativity

Government Assistance Programs/Tax Relief

- Maintain present use tax value
- Talk to all representatives but especially urban areas
- Reduce red tape
- Ownership should not matter
- If you’re promoting agriculture it doesn’t matter who owns property
- No need for size limit. Income can be made on smaller acreage
- Tax reform coming in 2013 – timing is right
- Keep heat on local elected officials
- Concern about zoning/building permits
- Communicate building inspection issues related to farming
- Conflicting regulations particularly with agri-tourism
- Personal assistance for obtaining grants
- Paid consultant vs. government employee – list of grant writers
- Grant brokers
- Pay education loans for kids who go into farming
- Can we keep building inspectors off the farm
- Justify a different standard for agriculture (relaxed)
- Plan inclusion will help communicate and identify this issue
- Government assistance – how do we find it? Who will facilitate? What are the tricks to get approved?

Sprawl/loss of prime farmland

- Conservation fund to acquire land, publicly. Then farmer agreement to farm through conservation easement



- Land in prime farmland taken for development. Need corresponding permanently preserved farmland in another location
- Keep present use tax program for pure “farming”. Don’t want for all agriculture groups
- Get vacant buildings/businesses back into cities. Don’t take farmland
- Incentives to build in cities
- Discourage pay for costs to go out further in County
- Tool to evaluate land before turns into development
- Same ideas for residential development
- Limit sewer/water lines to prime farmland
- If commercial development leaves then put back into farmland
- Roll-back taxes be used for farmland preservation/grant supported activities



Appendix B: Community Review Meetings – March 2013

Strategy #2:

- Evaluate local zoning regulations and other development-related policies/regulations to support farming and agri-tourism
- General information (top paragraph). Why are agri-tourism businesses (off-farm) not exempted from county zoning regulations or at least taken into consideration?

Strategy #4:

- Establish funding support for developing and sustaining agricultural-based programs/projects
- Encourage drip-based, film-based low-water and low-chemical agriculture by providing publicly owned shared equipment at Farm Bureau to lay this specialized film with built in drip tubing.

Strategy #6:

- Communicate what local foods are available, where to get them, and how to use them
- Do not limit information for the availability of local food sources to websites. There are so many other avenues, i.e. social networking sites (Facebook, Twitter, etc.) as well as community events and organizations that warrant this same information.
- I wonder if any progress has been made in contributing information on available foods to existing websites.
- I would like to be a possible supplier via internet.

Strategy #7:

- Educate the public on local farming and garden best practices for the region
- Demonstrating the products of sorghum cane cooking to educate
- Work with local groups that are already meeting to educate citizens about sustainability like transitionus.com
- This strategy is one of your most important avenues to sustaining agriculture in Catawba County. Once the community understands the importance of where their food comes from then a large majority will start to care (I personally think) what they are consuming which in turn causes the demand for such products. This applies across the board in regards to demographics.
- I think the website is a good idea
- I have a lot of trouble finding sources of compost that are affordable or free.

Strategy #10:

- Educate farmers on opportunities to diversity crops/enterprises on the farm and to promote estate planning and farm transition planning to sustain existing farms



- Encourage farmers and potential food processors to identify themselves as small businessmen. Ask for focused programs at CVCC – Small Business Center. Tie into currently developing Kauffman Institute Initiative for small business funding. (Note: The Ewing Marion Kauffman Foundation is a private, nonpartisan foundation that works with partners to advance entrepreneurship in America and improve the education of children and youth. CVCC was recently named recipient of a Kauffman Foundation grant to pilot a program to invest in, mentor and motivate high-growth)

Strategy #13:

- Identify institutional demand and connect it with local supply and clarify expectations
- I am very interested in the idea of having a farming co-op for locals to pool their products for sale

Strategy #15:

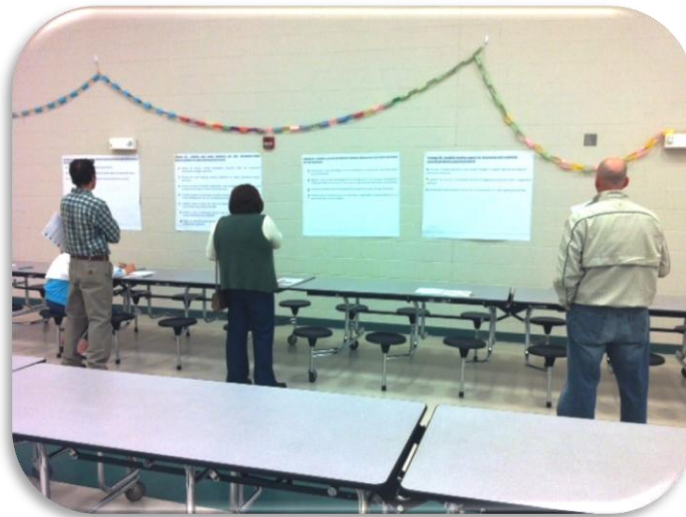
- Develop or facilitate the creation of the necessary infrastructure to assist in the production, processing and distribution of agricultural food products
- Develop local strategy to get around sequester block on slaughter inspections
- Communication – it would be great to have subcommittees to help cohesiveness and to keep momentum
- Want to make sure that it's easy to get word out on what is going on – PR and education are not the same – appropriate PR for appropriate audience
- Food Corp and other great ideas – would also like to see possible usage of interns for grant writing to make more possible.
- Look at Manufacturing Solution Center (CVCC) in Conover. Explore their support of food processing and farmers. Take to Dan St. Louis at MSC.
- I would prefer that the County not be involved in facilitating the development of a retail store or a mobile farmers market truck. These are two things better left to private enterprise, rather than having the County compete with what should be (could be) a private business.

General Comments

- There is a program like WIC which is geared to seniors. This would increase local demand.
- In Lincoln County, the school system buys local. This should be required by Catawba County Schools. Also investigate how to get local in area hospitals.
- On Cape Cod, there are local festivals, ex. cranberry harvest, to support local produce/agriculture and vendors. Once or twice a year, the restaurants have a buy local event where the specials are all made from local produce.
- Farmers have fancy “slow food” dinners at their farms.
- Good information. The plan will take time, but looks great.



- I especially support the UDO recommendation that a small building be allowed on property less than 10 acres without a house. Perfect for a roadside stand.
- Thanks to the group for all the hard work putting this outline together. Two of the main areas that I like are Strategy #3A to reuse buildings and property to save our farmland. The other item is to make markets more available to small producers.





Appendix C: Feasibility Assessment of a Shared-Use Agricultural Processing Facility in Catawba County, NC

Prepared for Catawba County, NC

by

John G. Bonham

August 2012



Introduction

Small farms struggle to achieve and maintain viability. Net farm income measured as a percentage of output averaged 22 percent for all farms in the U.S. in 2010.¹ However, net income was only 12 percent for farms with output between \$20,000 and \$50,000 and farms with less than \$20,000 of output realized a loss of 15 percent. In 2007, 84 percent of all farms in Catawba County had sales of less than \$20,000.²

Leaders of the Catawba County Farm and Food Sustainability Plan are aware of the potential that shared-use agricultural processing facilities have for enhancing the viability of small farms. Examples of initiatives involving such facilities cited by leaders include Pilot Mountain Pride in Surry County, Madison Farms in Madison County, and Blue Ridge Food Ventures in Buncombe County.

A shared-use processing facility is a commercial facility made available to local users on a contract or time-share basis. Pilot Mountain Pride and Madison Farms are agricultural aggregation centers, which bring together the products of multiple farms for the purpose of marketing to wholesale buyers. Blue Ridge Food Ventures is a regional value-added food processing center; a commercial kitchen that gives users access to production-scale food processing equipment in an inspected environment. The term shared-use implies that some or all of the core activities conducted at the facility are performed by the farmers rather than by hired personnel. Blue Ridge Food Ventures is a shared-use facility and also a food-business incubator that provides technical and business support services to users in addition to equipment, storage and operating space. Madison Farms is actually a grower network that acts a marketing agent. The processing facility is part of the Madison County Multi-Purpose Agricultural Complex where farmers wash, pack and store their products before selling them to Madison Farms. Pilot Mountain Pride was originally modeled after Madison Farms but has used hired personnel to process all the farm products in preparation for marketing. Nonetheless, it is operated for the purpose of providing wholesale marketing opportunities for local farms.

The economic rationale for shared-use aggregation and marketing facilities is based on two perceived conditions: 1) The demand for local foods is increasing and undersupplied; and 2) Small farms face capacity and distribution barriers to local-food market entry and expansion. In short, there are increasing marketing opportunities for local farms but small farms lack the resources to pursue them. The economic rationale for shared-use commercial kitchens is that farm operators can increase revenue

¹ USDA Economic Research Service. "Value Added to the U.S. Economy from the Agricultural Sector Via the Production of Goods and Services, by Size Grouping, 2010.

² 2007 Census of Agriculture.



and net income by processing their raw farm products into more valuable packaged food products. Agricultural and food markets are complex so the factors that define the opportunities and barriers surrounding small farms must be identified before a project can be conceptualized and fully vetted. This preliminary assessment focuses on the economic rationales and considers the potential for a shared-use processing facility to impact individual farms and the agricultural industry in Catawba County, and the conditions related to project development. The analysis was conducted using existing research, observations of conditions in Catawba County, and economic reasoning.

Economic Background

Farm viability can be measured by net income to farmers—revenue minus costs. Therefore increasing net income is a rational objective of a project seeking to enhance farm viability. Increasing net income can be accomplished by increasing revenue and/or decreasing costs. It is beyond the scope of this study to determine net income objectives for individual farms, but considering that the median household income in Catawba County is \$43,484³ and that 84 percent of farms in the county had less than \$20,000 in sales in 2007, it stands to reason that revenue growth is a necessary criteria for improving farm viability.

Revenue growth can be achieved by increasing total units sold and/or increasing the price received per unit sold. Gross profit is measured as revenue minus variable costs (costs that are directly proportional to the level of output) and must be sufficient to cover fixed costs (costs incurred even if output is zero) and owner's compensation—i.e. net income to the farmer. Achieving either higher unit sales or price will almost certainly impact a farm's cost structure by increasing or decreasing variable costs and/or fixed costs, but the net impact will depend on the magnitude of change for each variable.

Farmers are entrepreneurs because they coordinate resources (land, labor and capital), make strategic decisions, innovate, and bear the financial risks of the farm enterprise. Labor includes the physical and mental activities of the farmer and hired personnel, and it is the farmer's labor and entrepreneurial ability that are the primary resources used to create value. Capital refers to equipment and machinery used to produce goods.

In the context of this study, business activities can be broadly grouped as production, post-production processing, marketing, and management. Production activities are those needed to get the product ready for sale in a most minimal condition. Post-production processing refers to all activities that could

³ US Census Bureau. <http://quickfacts.census.gov/qfd/states/37/37035.html> accessed 8/30/12.



be performed after the product is sold. Marketing activities include all activities related to the promotion, sale and distribution of the product.

Adequate market demand is a necessary condition for revenue growth but one that can be wrongly assumed. Demand is the willingness and ability to buy a product for a specific price. Three factors that can strongly influence demand are consumers' preferences and income (or budget) and the prices of substitute products. Income and the strength of preferences influence consumers' sensitivity to price changes, or their willingness and ability to buy a product even though its price has increased or the price of a substitute product as decreased. These factors are important because food prices are volatile and consumers can be fickle in their interests.

These principles were used to assess the potential feasibility of a shared-use processing facility. The investigation considered:

- Which factors are most limiting: land, labor, capital, entrepreneurial ability.
- The potential impact to an individual farm.
- The number of farmers that are likely to use and benefit from the facility.
- The total impact to the agricultural industry in Catawba County.
- Market demand for the products.

The Food Supply Chain

The food supply chain is a network of food-related business enterprises through which food products move from production to consumption. Typical links in the supply chain are:

producer → processor → distributor → wholesaler → retailer → consumer.

Of course not all food products follow the entire chain; for example, when sold at a farmers market, a product's chain consists only of the producer and consumer links. Just as food products reach consumers through a variety of supply chains, they become final goods by following one of many value chains. A value chain is a series of activities that gives a product more added value; it can be contained in a single company or combine the activities of multiple companies. For food products, activities can range from simple trimming and peeling, to canning and freezing, to incorporation with other inputs to create heat-and-serve meals. The concept is useful for considering the types of food products desired by local-food markets and the barriers faced by small farms in supplying them. Ultimately value-added and marketing activities are dependent on the resources and objectives of the producer, the demands of consumers, and the needs of the intermediaries that form the links between the two. Aggregation centers primarily address supply chain issues while commercial kitchens address value chain issues. Since small farms face challenges related to both, the demand side of the market must be examined to help direct the assessment.

Consumers are as hungry as ever for new and novel products (pun intended). For evidence just observe the countless varieties of beverages, salad dressings, hot sauces, cereals and snack bars, and even



canned vegetables available at supermarkets. The food product industry is highly competitive and is becoming more consolidated. To be successful a company must be innovative in its creation of products. Because there are so many available options, companies must also be effective marketers to entice consumers—quality may engender repeat sales and brand loyalty, but image and promotion are critical to getting shoppers to make the first purchase. There is also an increasing number of attribute labels that reflect consumers’ desire for nutritional, performance, process, and social values; examples include organic, natural, cage free, hormone free, all vegetable diet, gluten free, zero trans fats, and local. Local is a cue that signals the presence of other attributes, some more important to consumers than others. A USDA Economic Research Service (ERS) report⁴ cited surveys and studies on consumer preferences related to local food. In several surveys consumers identified freshness, support for the local economy, and knowing the source of the product as reasons for buying local food. Environmental and health-related attributes had little effect on food purchases. Surveys suggested that local was a more important factor when buying fresh produce than when buying processed foods.

Market channel is an important factor in this assessment. Responses to a survey cited in the USDA ERS report identified inconvenience as a common reason that consumers did not shop at a farmers market. This is not surprising and validates the interest in an aggregation center like Pilot Mountain Pride as a means to access mainstream markets. The USDA ERS report and the feasibility study for the Pilot Mountain Pride project⁵ reported the concerns of institutional and restaurant buyers. Common reasons for not buying local foods included unreliable supply and delivery, inconsistent quality and availability, complicated ordering methods, and payment terms. An inability to deal with one supplier was either directly cited or is inherit in other reasons. Institutional and restaurant buyers surveyed in both studies expressed interest in purchasing local produce and one survey suggests that supporting local businesses is an important factor.

Maintaining viability is a difficult challenge for small and mid-size produce growers. When compared to large operations they face a couple of scenarios when marketing to wholesale buyers, which typically involves the use of an intermediary such as a broker or distributor. Prices in these markets are low and thus gross profit (income after variable costs) are low too. Large farms realize net gains by selling large volumes of product. Small farms face two disadvantages. The first is that their variable costs are

⁴ Martinez, Steve, et al. “Local Food Systems: Concepts, Impacts, and Issues.” USDA Economic Research Service. Economic Research Report No. 97. May, 2010.

⁵ Mills, Smithson. “A Feasibility Analysis and Recommendations for Development of an Agricultural Consolidation and Marketing Center.” October, 2009.



typically higher so their gross profit per unit is lower. The second disadvantage is that their production output is lower so they do not have the volume of units needed to meet their income objectives.

Small farms often seek higher prices by marketing directly to consumers, restaurants and specialty retailers. As the demand for local food and specialty varieties has increased, producers have been able to differentiate themselves from large wholesale growers who typically distribute their products across a wide geographic area. Direct marketing requires producers to conduct many post-production processing and marketing activities, including storage, transportation, packaging, promotion, sales, and customer service. Producers are increasingly coming to realize that direct marketing imposes substantial opportunity costs on their time, effectively driving down their hourly compensation and limiting their ability to expand or improve production. If they hire labor to do the marketing, then the added direct expense offsets much of the added revenue. Furthermore, there are a limited number of restaurants, retailers and institutions willing to buy from individual farms so total demand from these market segments may be less than supply. These realities make mainstream markets appealing to producers. However, mainstream markets are difficult to access because of buyers' demands for high volumes, consistent quality, timely deliveries, and year-round availability. Consumers strongly prefer convenience and consistency so the majority of retail purchases will continue to be made at supermarkets, which are supplied by intermediaries. Institutional and restaurant buyers want to work with a single seller who can provide a consistent supply and meet their delivery and billing requirements. The barrier to mainstream markets is a lack of distribution systems that involve one or more intermediaries to coordinate supply and distribution.

Commercial Kitchens

Commercial kitchens give users access to production-scale food processing equipment in an inspected environment. Farm-based producers can utilize commercial kitchens to add value to their agricultural products by processing them into packaged food products. Processing also offers farmers a potentially profitable option for their culled items—edible but unmarketable as fresh because of superficial defects. Benefits can accrue through greater returns on each unit of produce—especially if the culls would have been waste— higher gross profits and improved cash flow during offseason months.

Unfortunately this economic strategy is not being realized on a broad scale. Mills and Wold⁶ reported that in 2006, only four of Blue Ridge Food Ventures' 51 clients were farm-based businesses. Speaking at

⁶ "Developing Shared-Use Food Processing Facilities in North Carolina." Smithson Mills and Cameron Wold. Center for Assessment and Research Alliances at Mars Hill College.



a forum on local food systems and sustainable agriculture in 2012,⁷ Mary Lou Sergei, the Executive Director at Blue Ridge Food Ventures, remarked that the center was not being used by farmers as much as had been anticipated.

Commercial kitchens can vary greatly in terms of scope and scale, and thus in terms of capital and operating costs. Mills and Wold identified the characteristics of regional value-added processing centers and community kitchens:

- Regional value-added food processing centers are designed to provide a wide range of processing systems, accommodate multiple users at the same time, and:
 - Are able to serve an area with a radius of at least 50 miles that includes multiple communities.
 - Usually cost \$800,000 to well over \$1 million to implement.
 - Must have a large number of users with at least one or two tenants using the facility 10 or more hours each week.
- Community kitchens are smaller, have limited processing systems, can accommodate one or two users at the same time, and:
 - Serve a single community or county.
 - Usually cost less than \$300,000 to implement.

The two types of facilities also differ in terms of the staffing needs and business support services offered. Mills and Wold concluded that to have an economic impact regional value-added centers must serve as business incubators and provide training and support to their clients. Community kitchens, on the other hand, have little economic impact and thus should serve a community development function in addition to providing resources to entrepreneurs.

Aggregation Centers

Aggregation centers bring together the products of multiple farms for the purpose of marketing to wholesale buyers. They are increasingly being developed as economic development strategies for small and mid-size farms growing conventional and specialty varieties of fresh produce. Differentiating the

⁷ “Growing the Appalachian Food Economy: A Forum on Local Food Systems and Sustainable Agriculture.” April 3–4, 2012. Asheville, NC.



products as locally grown is a primary business strategy that is often combined with the use of high tunnels and other season extension technologies. In many cases a separate entity is established to market the produce to wholesalers, retailers and institutions whose demand for locally grown products is not being met by conventional distributors. Shared-use centers are equipped so users can perform the post-production processing of their produce needed for marketing—washing, sorting, grading, and packing. They are also equipped with coolers to store the products until they are sold and delivered.

Forty-five regional aggregation centers participated in a 2011 survey conducted by the National Food Hub Collaboration.⁸ The survey found that most aggregation centers are socially driven business enterprises with a strong emphasis on “good prices” for producers. Fresh produce is the primary product category which is sold through a variety of market channels—restaurants are an important entry point. The median number of suppliers to aggregation centers is 40. Twenty of the survey participants also participated in follow-up telephone interviews, which explored economical viability. Ten of the centers were self-described as economically viable. Eight of them had been in business at least five years; the median age was 9.5 years. They have annual sales between \$1 million and \$40 million with a median of \$6 million. Of the ten centers that described themselves as not yet viable, six were at least five years old and the median age was five years. Annual sales range from \$500,000 to \$5.5 million with a median of \$500,000. Balancing supply and demand was the most common challenge of all 20 centers. The survey also found that many wholesale buyers resisted paying higher prices for products from regional aggregation centers relative to alternative distributors, and that several centers had to allocate resources to educate customers and improve their willingness-to-pay.

Project Development

In their study of shared-used food processing facilities in North Carolina, Mills and Wold found that successful projects require substantial capital resources, institutional capacity and community involvement. Following are some of the questions they suggest potential funders ask when evaluating the viability of projects:

- Is the project a regional value-added center, a community kitchen or a shared-use agricultural facility? Do project leaders understand these concepts and understand their project’s potential and limitations?

⁸ Barham, James, et al. “Regional Food Hub Resource Guide.” USDA Agricultural Marketing Service. April 2012.



- Who are the project collaborators? Is there multi-organizational support for the project? What is the breadth and depth of institutional capacity?
- Has the site for the project been identified? Is it owned by a government, educational or nonprofit agency?
- Regarding regional value-added food processing centers:
 - Does the targeted region have measured unmet demand for food processing or commercial kitchen space?
 - Does the project have active support from a local extension office, a state university, a community college or a well-established economic development organization? Are there programs to address technical assistance, business training and access to capital?
- Regarding community kitchens:
 - Is the project affiliated with an existing organization able to host the facility?
 - What is the estimated cost of development in comparison to estimated economic impact?
 - In addition to economic development, is the project also able to contribute to non-economic community development efforts?
- Regarding [aggregation] facilities:
 - Does the project have active support from local and state agricultural service providers? How formal or reliable are commitments of support?
 - Does the project meet a measured demand for a specific type of agricultural [commodity]?
 - Who are the farmers who will be using the facility? What is their level of existing organization or prior collaboration? How serious are they about using the services of the facility?

These questions reveal the scope of institutional capacity and community involvement needed for a project to be successful. Most of the projects reviewed in the Mills and Wold report were products of years of planning and some started from other development initiatives. For example, Madison County Extension had been developing transition programs for tobacco farmers since 1997 in preparation for the 2004 tobacco buyout; Madison Farms opened in 2006. The planning for Blue Ridge Food Ventures, which opened in 2005, began in 2001 and included a comprehensive feasibility study in 2002. Stecoah



Valley Food Ventures is a community kitchen that opened in 2005; planning for the project started in 2003 when a producer association was given access to a small, non-commercial kitchen. Pilot Mountain Pride was four years in the making: the need was first identified in 2006;⁹ planning began in 2008;¹⁰ a comprehensive feasibility study was conducted in 2009; and the center opened in 2010.

Catawba County

The leading agricultural sectors in Catawba County are broilers, beef cattle, ornamental crops, dairy, and field crops. A facility for the ornamentals sector was not considered because this assessment is part of the Farm and Food Sustainability Plan and there is no compelling evidence that an opportunity exists to significantly enhance the greater agricultural industry in the County through a shared-use facility for the sector. The broiler sector is dominated by integrators that control their own post-production processing and marketing and the new Foothills Pilot Plant in Marion was developed as a resource for independent producers. Beef cattle producers have the new Feeder Calf Marketing Center in Catawba County and Mays Meats in Taylorsville, a USDA-inspected processing facility that serves small, independent producers. Many farmers, consumers and advocates lament the demise of small dairies. The complexities of the dairy sector are too numerous to discuss here, but suffice it to say that the cost of a public-led development project would likely exceed the potential benefits to the remaining three dairies in the County and the greater agricultural industry. Field crops—corn, soybeans, cotton, etc.—are purely competitive products that have highly efficient supply chains where opportunities are best exploited by individual private businesses. Arguments in support of projects for each of these sectors can surely be made, but there are far more reasons not detailed here why the overall benefit would most likely be less than the cost.

The scope and scale of fruit and vegetable production is uncertain but annual sales were \$912,000 in 2008 and increased to \$1,027,000 in 2010.¹¹ Farm and acreage figures for those years are unavailable but the 2007 Census of Agriculture reported 25 farms with a total of 148 acres in fruit and vegetable production that year. Information about the industry was scarce at the onset of the Farm and Food Sustainability Plan and the three community meetings held since yielded little new information. MDI, Inc. a wholesale grocery store distributor headquartered in adjoining Caldwell County. They are a major supplier of fresh produce and have begun an initiative to work with local growers. There are also four

⁹ <http://pilotmountainpride.com/index.php> accessed 8/29/12

¹⁰ Mills, Smithson. "A Feasibility Analysis and Recommendations for Development of an Agricultural Consolidation and Marketing Center." October, 2009.

¹¹ NC Ag Stat Book: 2010 and 2011. USDA National Agricultural Statistics Service and NCDA.



seasonal tailgate markets in the County: Downtown Hickory Farmers Market with over 30 vendors; the Conover Farmers Market; the Claremont Tailgate Market; and a curb market at Center United Methodist Church in the Bandys area. Julie Lehmann, Market Director for the Conover Farmers Market, conducted an informal survey of vendors; four expressed interest in a commercial kitchen and three expressed interest in an aggregation center. Interest in an aggregation center was a common theme at the three community meetings held to gather input for the Farm and Food Sustainability Plan.

Conclusions

An aggregation and marketing center for fresh produce will likely have the greatest potential to improve the viability of small farms in Catawba County. The key factors leading to this conclusions are:

- Increasing farm production and unit sales will have a greater impact on the agricultural industry in Catawba County than increasing unit prices through value-added processing.
- Increasing production and marketing through an intermediary will appeal to a greater number of farmers than developing value-added food enterprises.
- Market expansion is necessary to achieve significant growth in unit sales.
- Marketing commodities through an intermediary will enable producers to utilize their time more efficiently.
- Farm-based businesses will not likely utilize a commercial kitchen at the level required to cover its operating costs.

However, development of such a project is not feasible at the present time. The key factors leading to this conclusion are:

- Evidence of producer interest, adequate supply, and buyer demand is insufficient.
- Institutional capacity and community involvement is underdeveloped.

Limiting Factors

Capital and farmers' human resources are the most limiting factors of revenue growth. Land and physical labor are the least constraining resources because they can be acquired (by paying rent and wages) in incremental amounts and without a long-term commitment. Equipment and machinery (capital) needed for post-production processing is a barrier for small farms because most are designed to handle large volumes of product and covering their costs requires usage rates that exceed the output of individual farms. Since both of the strategies address capital, the most rigid constraint is farmers' time. A farmer cannot hire more of himself or increase the number of hours in a day. Efficiency is critical to viability so farmers should perform the activities that best utilize their abilities and hire out or eliminate those that inhibit strategic growth and performance.

Running a farm is like any other small business in that the owner-operator is responsible for making all the strategic decisions. Each farmer is unique in his or her abilities and successful small farms today are often more than growers of crops and animals. But crop and animal production is the foundation of a



farm on which all other activities are based. As entrepreneurs, farmers are expected to excel at production and strategic decision-making. Post-production processing, especially food processing, and retail marketing activities are generally not the best use of a farmer's time. Farm production involves skills in plant nutrition and growth, soil fertility and preparation, cropping systems, pest and disease management, and animal breeding, feeding and handling. Food product development and processing involves knowledge of food trends, ingredients, food science, and the food retailing market. Most farmers and food product developers do not excel in both.

Market Expansion: Aggregation-Marketing Center

The function of an aggregation-marketing center is to understand and coordinate the local food supply chain by connecting producers to markets. Marketing involves promotion, distribution and sales. As a single entity, an aggregation-marketing center consolidates each set of activities. It can develop promotional strategies to educate wholesale buyers and retail consumers on the benefits of local foods and thus build demand and command higher prices. As a single seller it can build the relationships with a few relatively narrow customer segments that purchase large volumes of products. And as a distributor it can develop the logistical systems needed to achieve efficiency and meet the needs of wholesale buyers.

Market expansion seeks to gain access to established, mainstream markets. Demand for fresh produce in these markets is more measurable and predictable than for processed food products. Because they are commodities, the products from each farm are relatively uniform relative to one another and to "imports," so buyers can substitute them in and out as availability fluctuates. Aggregation and market expansion capitalizes on farmers' production knowledge and skills. Post-production processing activities can be conducted by farmers or by hired labor—employees of either the aggregation center or the farmer. The capital barrier is removed and farmers can direct their abilities where they are most valuable; production and strategic planning. An expected outcome is lower variable costs as farms increase in scale and farmers utilize their time and abilities more efficiently.

Concerns remain about the demand for local produce in mainstream markets. Aggregation-marketing centers developed to serve small farms feature *local* as an attribute and seek price premiums. Each customer segment (grocery retailers, restaurants, institutions) have different interests and budget constraints. Does a core group of buyers exist that have the willingness and ability to purchase a substantial proportion of a center's supply?

Concerns also remain about farmer participation and supply. Area produce growers do not appear to be organized and questions remain regarding to the level of output. If there is significant demand for local produce will growers be able to meet it?

Value-Added Processing: Commercial Kitchen

A commercial kitchen creates opportunities for product innovation. Food processing is a legitimate enterprise for some farmers, especially in small quantities to supplement their farm and/or agritourism business. At first thought it might seem that value-added food processing would be a better strategy



since small farms are constrained by land and labor. By adding value through processing, they can increase unit revenue rather than units of output. However, evidence from Blue Ridge Food Ventures suggests that it is not a widely adopted strategy. Engaging in a food processing enterprise requires farmers to direct resources away from the farm to develop and manufacture the products. Products are unique so they cannot be easily aggregated with those from other producers; and because they are produced in small quantities, the task of marketing falls upon the farmer. Technical and market knowledge and the ability to innovate are major factors in the highly competitive food products industry in which most farmers have little experience.

Manufacturing and marketing food products is a challenging endeavor and individual success is highly uncertain. Many capable entrepreneurs who devote their full attention to a food product enterprise fail to develop a viable business. So why should farmers, who devote the majority of their attention to growing crops and livestock, be even as likely to attain success. The output of the farm may be the primary input to the food product, but they are two separate and different enterprises. Many farmers simply do not have an interest in pursuing a value-added enterprise, others do not have the time and/or entrepreneurial ability.

Value-added processing will be appealing, but only to a small number of farmers. Many will not succeed and others will choose not to continue for various personal and business reasons. Participation will likely be insufficient to cover the facility's operating costs.

Project Development

Investigation of this project is in an early stage. It has primarily been an initiative of a few community leaders exploring strategies to improve farm viability. Although these projects require strong leadership, they typically begin as a response to producers and market signals. Hopefully this assessment will give leaders a better understanding of the economic concepts as well as the potential and limitations of a shared-use agricultural processing facility project.





Appendix D: Feasibility Assessment of a Farm Incubator in Catawba County, NC

Prepared for Catawba County, NC

by John G. Bonham

November 2012



Purpose and Background

Catawba County is developing a Farm and Food Sustainability Plan for the purpose of improving the sustainability of agriculture in the County. One of the strategies identified by plan leaders is to develop and expand local food markets. Essential to that strategy is the supply of locally grown fruits and vegetables. County staff and other community members suggested that the County develop and operate a farm incubator as a means to expand the number of fruit and vegetable farms by providing new entrepreneurs with technical training and access to land and equipment during the start up phase of their businesses.

The Need

A recent study¹² on the feasibility of a shared-use agricultural processing center for Catawba County found that the supply of fresh produce is insufficient to support a local market that includes commercial and institutional buyers. This condition is not unique to Catawba County. During their Farm-to-Fork initiative, the Center for Environmental Farming Systems found that the demand for producers serving direct, retail and institutional markets in the State exceeds the supply.¹³ There are also a number of statistics indicating that fruit and vegetable production in the County is relatively low.

In 2007, there were 25 fruit and vegetable farms with 148 acres in production, which represented three percent of all farms in the County and 0.2 percent of total farmland. By comparison, the median values for the 100 counties in North Carolina were six percent of farms and 0.3 percent of total farmland. If fruit and vegetable production in the County had been proportional to the State median, then there would have been 44 farms and 244 acres of production.¹⁴

¹² *Preliminary Feasibility Assessment of a Shared-Use Agricultural Processing Facility in Catawba County, NC.* John Bonham. August 2012.

¹³ *From Farm to Fork: A Guide to Building North Carolina's Sustainable Local Food Economy.* Curtis, Jennifer, et. al. April 2010. Center for Environmental Farming Systems report, Raleigh, N.C.

¹⁴ *2007 Census of Agriculture.* USDA, National Agricultural Statistics Service.



Table 1. Fruit and Vegetable Farms and Acres, 2007

	Farms	Acres	Produce Farms	Produce Acres
NC County Median	468	73,698	28	250
Percent of Total	100%	100%	6%	0.34%
Catawba County	737	71,906	25	148
Percent of Total	100%	100%	3%	0.21%
<i>Number if Proportional to Median</i>			44	244
<i>Increase over Actual</i>			19	96

Source: 2007 Census of Agriculture, USDA-NASS

In 2010, farm cash receipts from fruits, vegetables and berries in North Carolina totaled \$522 million, or 5.4 percent of total farm cash receipts. Fruit and vegetable producers in Catawba County generated \$1 million in farm cash receipts that year, accounting for only 1.8 percent of the County's total. Had sales in the County been proportional to the State, cash receipts from the produce industry would have been over \$3 million.¹⁵

Table 2. Farm Cash Receipts from Fruits, Vegetables & Berries, 2010

	Receipts in \$1,000	% of Total
North Carolina Total	9,659,415	100%
Fruits, Vegetables & Berries	521,608	5%
Catawba County Total	55,907	100%
Fruits, Vegetables & Berries	1,027	2%
<i>Amount if Proportional to NC</i>	3,019	
<i>Increase over Actual</i>	1,992	

Source: 2011 North Carolina Agricultural Statistics, USDA-NASS & NCDA

¹⁵ 2011 North Carolina Agricultural Statistics. USDA, National Agricultural Statistics Service and NC Department of Agriculture & Consumer Services



Study Objective

The objective of this study was to gauge the feasibility of a farm incubator in Catawba County. A conceptual plan for the incubator had not been developed, therefore the scope of this study was limited to a general assessment of the criteria and conditions for feasibility. The outcomes include a conclusion regarding the potential feasibility of a farm incubator, and recommendations on how the County should proceed.

Study Methodology

The study sought to identify the critical elements of farm incubators and describe them in measurable terms that will enable Catawba County to develop a conceptual plan, which can be evaluated more comprehensively if needed.

The investigation proceeded with a review of literature and resources available on the internet. Several existing farm incubators were contacted for additional information. Information on conditions in Catawba County was gathered from published data sources and communications with Jeff Carpenter, County Director for NC Cooperative Extension.

Farm Incubators

There is no single definition of a farm incubator and is a term that is broadly applied to organizations that offer some combination of experiential education and low-cost land and infrastructure to new farmers. Some programs focus on teaching beginners how to farm, others place an emphasis on supporting new farm businesses. The Center for Environmental Farming Systems offers the following description:

Typically [a farm incubator] is one or more parcels of land where one or multiple producers are farming and marketing farm products through their own new farm business enterprise, often with organizational access to training / technical assistance opportunities on farm business and production practices.¹⁶

The farm incubator concept is based on traditional business incubators. Since Catawba County's objective is to develop new farm businesses, it is useful to consider the description of business incubation provided by the National Business Incubation Association:

¹⁶ <http://www.cefs.ncsu.edu/whatwedo/foodsystems/incubatorfarmproject.html>



Business incubation is a business support process that accelerates the successful development of start-up and fledgling companies by providing entrepreneurs with an array of targeted resources and services. These services are usually developed or orchestrated by incubator management and offered both in the business incubator and through its network of contacts. A business incubator's main goal is to produce successful firms that will leave the program financially viable and freestanding.

Critical to the definition of an incubator is the provision of management guidance, technical assistance and consulting tailored to young growing companies. Incubators usually also provide clients access to appropriate rental space and flexible leases, shared basic business services and equipment, technology support services and assistance in obtaining the financing necessary for company growth.¹⁷

By providing access to land and infrastructure, farm incubators eliminate the short-term need for large capital outlays and give entrepreneurs the opportunity to build their businesses prior to making long-term investments. In the short-term, entrepreneurs who would not otherwise be able to make the capital outlays are given an opportunity to develop and prove themselves to lenders. Even when the capital requirements are not a barrier, starting a farm on an incubator frees up cash for operating expenses, improves eventual site selection and investment decisions, and reveals when a farm business is not right before an individual makes substantial investments.

Farm entrepreneurs can also benefit from incubators by realizing lower variable costs through volume purchasing and pooled labor. And they have the opportunity to participate in networking and support systems that accelerate learning and market entry—thereby reducing costs, increasing revenue and improving net cash flow.

Every farm incubator is developed according to the community's unique circumstances including the need, mission, goals, and strategies. There is no single model to follow but most have many common features.

Land and Infrastructure

Farm incubators require land and infrastructure to support the tenant enterprises and the facility as a whole. The need for each type of resource will depend on the types of enterprises using the incubator;

¹⁷ http://www.nbia.org/resource_library/what_is/index.php



e.g. annual fruits and vegetables, poultry, cattle, etc. Land is needed for rental plots, infrastructure, demonstrations and events, and ancillary activities. Infrastructure typically includes:

- Irrigation equipment, wells or ponds
- Roads
- Fences
- Greenhouses and/or high tunnels
- Equipment and implements that infrequently used by an individual farmer and/or require a substantial capital outlay
- Cold storage
- Buildings/structures to store equipment and supplies, and for post-harvest processing
- A structure to house a farm store may be desired as well

Because scaling up is a fundamental aspect of new farms, some degree of flexibility is essential when dividing production and storage space among tenants. At some farm incubators, tenants are assigned small plots in the first year and progressively larger plots in subsequent years as they develop operational capabilities and markets. At the Elma C. Lomax Incubator Farm in Cabarrus County, transitioning enterprises can continue to rent smaller plots and storage space to augment their independent operations while they get established.

Shared Business Services

The high cost of land and infrastructure is not the only barrier to new farm enterprises. Farm incubators provide access to valuable business services that are costly when purchased in small quantities. Examples include:

- Volume purchasing of supplies
- Marketing services such as brokering, distribution, and CSA coordination
- Day labor
- Custom work

These services may be provided directly by the farm incubator or by a partner organization. The costs associated with each individual service can be incorporated into the primary fees paid by tenants, or charged as separate fees.

Technical Assistance and Consulting

Business training and technical support are critical features of any business incubator. These services relate to subjects such as:

- Business planning
- Production methods
- Equipment training
- Transition planning
- Access to financing

Similar to business services, training and consulting can be provided by the farm incubator or by partner organizations, and individual service fees can be charged or not.



Keys to Success

A successful farm incubator must provide effective programs. It must also be a viable entity. Following are selected factors cited by existing farm incubators and that are particularly relevant to Catawba County.

- Support from county government
- Local funding to finance operations until sufficient revenue is generated.
- Extension agents committed to providing technical training
- Experienced farmers serving as mentors and providing additional technical training
- Business training is an integral component of the program
- The provision of transition assistance

Costs and Funding

Estimating or even generalizing the costs of developing and operating a farm incubator was difficult because there is little information readily available. Furthermore, each incubator has a unique set of features and was developed under unique circumstances. However, two sources indicate that start up costs will range from \$200,000 to \$400,000 and annual, non-labor operating expenses will range from \$50,000 to \$75,000.^{18,19}

Grants are typically obtained to develop economic development projects. Recently developed farm incubators in North Carolina were supported by grants from organizations such as NCDA, USDA, Rural Advancement Foundation International USA. Orange County supports the PLANT Farm Enterprise Incubator through a budget line item. Cabarrus County uses the deferred taxes collected from properties leaving the Present-Use Value Tax program to finance farmland preservation and agricultural development, including the Elma C. Lomax Incubator Farm.

Catawba County

Land and Infrastructure

The County owns a number of potential sites. The most likely location would be the buffer area of the landfill near the EcoComplex. The EcoComplex currently has the Hmong [horticultural] Demonstration

¹⁸ Elma C. Lomax Incubator Farm, Cabarrus County. Interview with Aaron Newton, Cabarrus County Local Food Coordinator.

¹⁹ Donna William and Rick Zimmerman. *Greene County Agriculture Incubator Study*. Greene County, NY. July 2010.



Site which consists of a high tunnel and six one-quarter acre plots. The site is equipped with a well for irrigation. Sunflowers and canola are grown on approximately 80 acres of buffer area around the landfill and are used as feedstock for the Biodiesel Research Facility.

Organizational Capacity & Community Support

Jeff Carpenter, County Extension Director, indicated that Extension is committed to the project and would like to provide training and technical assistance to growers. However, doing so will require a substantial amount of an agent's time and Extension does not currently have the capacity.

The Small Business Center located at Catawba Valley Community College is a potential partner for providing business training. It may be necessary to develop a program to address the specific needs of farm businesses.

The community and County government support agricultural economic development and have been very supportive of the EcoComplex. The level of financial support by the County is unknown but it is likely that some grant funds will be needed for startup expenditures.

Potential for Achieving Goal

In assessing the potential for a farm incubator to increase the number of fruit and vegetable producers in the County, the study asked several questions.

Are there enough willing and able participants?

A waiting list for plots at the Hmong Demonstration Site and increasing activity at area tailgate markets suggest that there is sufficient demand for a farm incubator. It is reasonable to assume that the successes of the County's burgeoning local fresh produce market and early incubator tenants would motivate other entrepreneurs, thus maintaining demand.

Is land available in the County for the new enterprises?

According to Jeff Carpenter, there is an ample supply of two- to ten-acre fields—mostly used to grow hay—that are suitable for fruit and vegetable enterprises, and that could be rented at reasonable rates.

Are there existing or emerging markets to support the new enterprises?

There are two established tailgate markets in the County (Hickory and Conover) and two new markets (Claremont and Bandys), and there are other direct marketing opportunities that exist throughout the region. Extension agents and other industry leaders are developing relationships with local restaurants and Gaston County is investigating the feasibility of an aggregation center.

Given the growing trends in local food (national and regional), the current local initiatives and the County's plan to support its farms and food systems, it is reasonable to expect that the farms developed



on the incubator will have places to sell their products. However, demand will largely be influenced by the entrepreneurial ability of the new farmers. They will need to be innovative in developing niche markets and the infrastructure to supply them.

Conclusions and Recommendations

The findings from this study suggest that a farm incubator in Catawba County is potentially feasible. The conclusion was reached after assessing the findings and determining that some factors support feasibility while others are inconclusive.

Supporting Factors

The goal and need are consistent with the purposes of a farm incubator. Fruit and vegetable production in the County is relatively low and insufficient to support a widespread local market. The goal of the project is to address the need and expand the number of fruit and vegetable producers in the County. Farm incubators remove the barriers to entry faced by startup farms. The Center for Environmental Farming Systems cited existing farm incubators in the State as programs that help serve the need for more local food producers.²⁰

The County owns suitable land to site the farm incubator.

County officials are supportive of, if not enthusiastic about, agricultural economic development initiatives.

Evidence of the potential for success. The Hmong Demonstration Site is a successful project that demonstrates the possibilities for a larger-scale farm incubator. Additionally, the region's nascent local food industry indicates that there is potential for significant growth.

Inconclusive Factors

The County's ability to capitalize the project. The cost and revenue structures of the farm incubator will determine the amount and timing of external funds needed, and potential funding sources—e.g. grants, County appropriations, fundraising events. There are reasons to suggest that financing the project is feasible. Interest in local food, small farms, agricultural economic development, and farm incubators in particular is widespread among public and private grantors—as indicated by the funding sources cited

²⁰ <http://www.cefs.ncsu.edu/whatwedo/foodsystems/incubatorfarmproject.html>



by existing farm incubators. Catawba County may find that it can use deferred taxes collected from the Present-Use Value Tax program without imposing a substantial impact on the County's budget.

Cooperative Extension's capacity to provide technical training and assistance. Extension is committed to the project and would like to provide technical training and assistance to the farmers. Indeed, Extension was cited as a key partner and/or a key to success by three out of the four farm incubators profiled on the Center for Environmental Farming Systems website. However, providing those services will require a substantial amount of an agent's time—as observed at the Hmong Demonstration Site—and Extension does not currently have the capacity to fulfill the commitment. This factor is not considered as evidence against feasibility because there are likely several options to overcome the challenge. Furthermore, the Hmong Demonstration Site provides practical insights that will improve the County's ability to successfully develop and operate a larger farm incubator. Furthermore, the County's Farm & Food Sustainability Plan recommends the staff function of a fruit/vegetable specialist within Cooperative Extension who could oversee the incubator project.

Recommendations

- 1. Solicit input from potential participants.** Assess the overall interest in a farm incubator and the desired features, specifically:
 - a. Location
 - b. Plot size and characteristics (e.g. certified organic)
 - c. Allowed enterprises (e.g. poultry, livestock, ornamentals, medicinal plants)
 - d. Infrastructure
 - e. Training and technical support services
- 2. Identify and contact potential partners.** Assess their capacity and conditions for providing services. For example:
 - a. Small Business Center at Catawba Valley Community College
 - i. Do their existing programs, services and resources match the specific needs of farm businesses?
 - ii. If not, are they interested in developing a special program?
 - iii. Can group and/or individual activities be conducted at locations other than the college campus? (e.g. The EcoComplex or Ag Center)
 - b. Carolina Farm Credit
 - i. Can they provide working capital loans to participants?
 - ii. If participants are unlikely to qualify independently, can a system be developed in which the County guarantees the loans?
 - iii. Can they provide individual and/or group education and guidance to prepare participants to obtain financing for capital purchases and working capital?



- c. Other individuals and organizations that can provide discounted or voluntary services related to production, bookkeeping, marketing, legal topics, etc.
- 3. Develop a conceptual plan.** Identify the critical features that will define the farm incubator's model.
 - a. Objectives and program model:
 - i. Participant attributes (e.g. background, types of enterprises, personal and business objectives)
 - ii. Fundamental benefits provided by the farm incubator as they relate to physical resources, technical support, business training, operating and marketing activities, access to financing, transition assistance, etc. (e.g. the farm incubator may help participants develop their individual marketing plans, or advise participants on cooperative marketing tactics, or coordinate a CSA and/or on-farm store.)
 - iii. Participant progression (e.g. timeline, milestones, transition)
 - iv. Framework for charging fees (not specific levels but, for example, fixed administration fee, land rent, equipment rent, metered utilities)
 - b. Specific resources and production services to be provided (e.g. shared equipment, dry storage for individual use, cold storage for individual use, joint marketing, bulk purchases of supplies).
 - c. Specific technical training and support services to be provided.
 - d. Minimum and ideal plot size and number.
- 4. Identify the physical, human and organizational resources needed to implement the conceptual plan.** Indicate:
 - a. Which resources are available.
 - b. Which resources can be purchased, and the cost.
 - c. Which resources need to be developed. (e.g. an individual or organization to provide a specific training or support service.)
 - d. Which resources will generate annual cash expenses.
- 5. Estimate budgets.** Include the value of County-owned resources and staff time. Segregate across resources and activities in order to, among other things, provide information needed to refine the fee framework and to set fee levels.
 - a. Start up costs
 - b. Operating costs
 - c. Working capital needs (e.g. cash needed to make bulk purchases of supplies that will be sold to the participants.)
- 6. Assess funding needs and sources.**
 - a. Specify fee levels and project operating revenue.
 - b. Identify the amounts and timing of needed funds.



- c. Develop a fund raising strategy, which would include applying for public and private sector grants.
- 7. **Plan for incremental growth.** If initial interest from potential participants is low or funding constraints are substantial, then consider how the farm incubator can be developed gradually, perhaps as an ongoing extension of the demonstration site at the EcoComplex.



Appendix E: Farmland Protection & Farm Viability Toolbox

National Protection Programs

When America was discovered, it revealed a vast expanse of uninhabited, rich lands suitable for farming. After the industrial revolution, massive cities and housing developments took the place of the once rolling hills of fields and agriculture. Since this occurred, several programs have been implemented to revert the abandoned farmland back into self-sustaining land and encourage a new generation of farmers. Some of these programs, such as Conservation Reserve Program, Conservation Stewardship Program, Debt for Nature, and Environmental Quality Incentives Program, are discussed below. There are also many grant programs through the Federal government and private foundations which help support agriculture. These are also discussed below.

Conservation Reserve Program

The United States Department of Agriculture's Conservation Reserve Program was created to help farmers conserve environmentally sensitive land by restricting the planting of certain crops that cause irreparable erosion of the land. Participants in the program plant long-term, hardy crops that do not pollute water supplies, have large root systems to prevent topsoil erosion, and encourage wildlife habitat. To allow participants to be profitable, the Farm Service Agency (FSA) provides rental payments and cost-share assistance. Producers enrolled in the program must have a contract to sustain their environmentally conscious farming for ten to fifteen years.

Conservation Stewardship Program

The Conservation Stewardship Program is a voluntary program in which farmers are encouraged to put into practice additional conservation activities while properly managing and improving conservation programs that are already taking place. Farmers must apply to the State Conservationist, who also works with local work groups, who will review the applications, focusing on how the project will impact the area's natural resources that are unique to that area or specific areas within the State. The Conservation Stewardship Program can offer applicants two different types of payment: an annual payment covering the installment and adaptation of additional conservation practices, and a supplemental payment covering the cost of resource-conserving crop rotations. These payments may increase according to the success of the conservation practice; the higher the operational performance, the higher the payment.

Debt for Nature

The program Debt for Nature, also known as the Debt Cancellation Conservation Contract Program, is a program for qualified landowners that protects natural wildlife and offers payment for the proper upkeep of the land. The program is available to people with FSA loans on real estate. A portion of their FSA debt may be annulled in exchange for a binding conservation contract with a term of either ten, thirty, or fifty years. The contract is a voluntary legal agreement that dictates the amount of development that can occur on the land held in the agreement. Areas of land that are eligible to participate in the program are: wetlands, lands highly susceptible to erosion, lands containing the habitats of endangered animals or wildlife important to the region or nation, lands in 100-year



floodplains, land with high water quality or scenic value, historic land, buffer zones around vulnerable environments, and areas within Federal, State, or local conservation areas.

Environmental Quality Incentives Program

The Environmental Quality Incentives Program (EQIP) is a voluntary government program in which financial aid and technical assistance are given to farmers through a contract with a maximum term of ten years. EQIP covers the cost of applying sustainable farming practices and the conservation of lands that aren't being used for production. The local NRCS staff works with the producer to develop a plan that fits the conservation needs of that producer's land and concentrates on how to preserve the natural resources. After evaluating the land and creating the conservation plan, the farmer must follow the plan or funding has a possibility of being revoked.

Farm and Ranch Land Protection Program

The NRCS provides matching funds to purchase development rights through its Farm and Ranch Lands Protection Program (FRPP). Landowners work with the government or land trusts to agree to sell their development rights, with USDA providing up to 50% of the land's fair market easement value. Only land large enough to sustain agricultural production is eligible. Participants develop a conservation plan with NRCS assistance that outlines the management strategies that they propose to use on the enrolled land. The North Carolina NRCS accepts applications from eligible entities during an annual application period funding the program with a portion of a national FRPP allocation annually provided to the State.

Forest Land Enhancement Program

The Forest Land Enhancement Program is a voluntary program for private forest landowners to receive technical and cost-share assistance to promote the sustainability of their forests. Funds are passed through to the State which reimburses 40-60% of the costs of specific forestry and wildlife habitat enhancement practices. Individuals who own at least 5 acres of forestland is eligible to participate in the program.

USDA-Agricultural Marketing Service

USDA provides several grants that support crop production. These include the:

- Specialty Crop Block Grant Program - Specialty crop block grant funds are provided to enhance the competitiveness of specialty crops, such as fruits and vegetables.
- Farmers Market Promotion Program - This program's grants are targeted to help improve and expand farmers markets, roadside stands, community-supported agriculture programs and other direct producer-to-consumer market opportunities.
- Organic Cost Share Program - Two organic certification cost share programs are available to support organic producers and/or organic handlers. Recipients must receive initial certification or continuation of certification from a USDA accredited certifying agent (ACA).¹⁹

USDA funds can be used to expand local farmers markets in the County and fund the "Project" action items, such as an agricultural processing facility



USDA – Farm Services Agency

The Farm Service Agency provides farmers with a funding option to purchase a farm or operate an existing farm. This program is an alternative to commercial banks or other lenders.²⁰ This service can be advertised to help local beginning farmers.

RAFI-USA (Rural Advancement Foundation International)

RAFI-USA was developed to “cultivate markets, policies and communities that support thriving, social-just, and environmentally sound farms.”²¹ RAFI-USA, through the North Carolina Tobacco Trust Fund, provides grant to help farmers replace lost income from tobacco with creative, sustainable farming initiatives. RAFI-USA has funded several local initiatives, most recently Spellcast Farms in Catawba County, who will use the grant money to expand its pastured rabbit program and add market vegetables. RAFI-USA funds can be used to support the “Project” action items in the Plan, such as an incubator farm or agriculture processing facility.

Farm Credit System

Farm Credit is a nationwide cooperative that provides financial assistance to agriculture, through loans, crop insurance, etc.²² The Farm Credit system can be promoted to help beginning farmers in the County and support existing farmers.

State Protection Programs

The State of North Carolina has a history of protecting its agricultural resources. This policy was formalized in 1986 with the adoption of the Farmland Preservation Enabling Act. The law authorized counties to adopt programs which encourage the preservation of farmland. This law was further refined in 2005 when the State adopted Session Law 2005-390. This law redefined the State’s definition of agriculture, provided additional tools for the State’s purchase of agricultural conservation easements (PACE) and provided new benefits for local agricultural district programs.

Right to Farm Law (Nuisance Suit Protection)

The State of North Carolina adopted a right-to-farm law (NCGS §106-700-701) in 1979. The law is aimed at protecting farming and forestry operations from being declared a nuisance as long as they have been in operation for at least one year (provided they are not negligent in their operations). The law specifically sets forth the State’s policy to “conserve and protect and encourage the development and improvement of its agricultural land and forestland for the production of food, fiber, and other products.” It acknowledges that when development encroaches upon agricultural land, that conflicts arise, which may lead to nuisance lawsuits. Legislative protection is therefore provided for agricultural and forestry operations to help limit nuisance lawsuits which may subsequently affect future operations of the farm.



Voluntary Agricultural Districts

The Voluntary Agricultural District Program (VAD), authorized by the Farmland Preservation Enabling Act, encourages preservation and protection of farmland in the State. The VAD program recognizes the economic and social importance of agriculture to North Carolina. Local agricultural district ordinances establish an Agricultural Advisory Board to oversee the program in which they review and approve qualifying applications and establish the districts. The members agree to keep farming on their land for at least ten years and receive more protection from nuisance lawsuits and receive signs stating they are a member.



To be eligible, the farmland must be engaged in agriculture, be managed in accordance with Soil Conservation Service defined erosion control practices for highly erodible land and be the subject of a conservation agreement. The agreement prohibits the farmer from developing the land, with exception of three lots, for a minimum of 10 years. Under the VAD program, farmers can revoke the conservation agreement with advanced notice, ending the benefits and no longer qualifying them for the program.

Enhanced Voluntary Agricultural Districts

Enhanced Voluntary Agricultural Districts were authorized in 2005 under Session Law 2005-390. The program is very similar to the Voluntary Agricultural District program. Both programs encourage preservation and protection of farmland from being used for development other than farming and recognize the economic and social importance of agriculture to North Carolina. In the Enhanced program, farmers receive all the benefits of the Voluntary Agricultural Districts and a few more. Farmers can receive up to 90% assistance in cost-share funds and they are more likely to receive priority for grants from state agencies, departments and institutions. Farmers can also sell non-farming products up to 25% of the gross sales without being subject to local zoning regulations.

The requirements for the Enhanced program are the same as the VAD except that the conservation agreement is not allowed to be revoked. After the ten year agreement, the farmer may leave the program by providing a request in advance, though the farmer will no longer receive the benefits. If the program participants do not request to be out of the program, they are automatically renewed for another three years.

NC Agricultural Development and Farmland Preservation Trust Fund

The NC Agricultural Development and Farmland Preservation Trust Fund provides grants to protect North Carolina's agricultural economy. The grants are provided to county governments and nonprofit groups for conservation easements, agricultural agreements and programs that enhance viable agriculture. The grants keep working lands productive; thereby, promoting the agricultural economy of the State in addition to providing water recharge areas, wildlife habitat and open landscapes.



Agricultural Cost Share Program

The Agricultural Cost Share program is a voluntary program that provides farmers with technical and financial assistance for the installation of best management practices (BMPs). The BMPs address nonpoint source water pollution concerns related to the farming operation. The program is administered by the local Soil & Water Conservation District.

Southern SARE (Sustainable Agricultural Research and Education)

SARE's mission is "to advance – to the whole of American agriculture – innovations that improve profitability, stewardship and quality of life by investing in groundbreaking research and education."²³ To achieve this, SARE provides grants in the categories of producer grants, on-farm research grants, and sustainable community innovation grants. Construction of the infrastructure action items in this Plan could be funded by Southern SARE.

NCAGR-Cooperative Grading Service

The North Carolina Department of Agriculture and Consumer Services has a GAP (Good Agricultural Services) certification assistance program. The grant program helps farmers obtain third party audits to ensure they are following appropriate food safety practices.²⁴ This funding can help implement the Plan's action item to provide GAP training for local farmers.

Golden LEAF Foundation

The Golden LEAF Foundation was founded in 1999 by the North Carolina legislature as part of a settlement agreement with cigarette manufacturers. Its goal is to provide funding to local governments or non-profit organizations to enhance the State's long-term economy in the area of agriculture and job creation. This funding source can be used for any of the Plans' "Project" action items.

Local Funding Opportunities

Local governments can provide dedicated funds for agriculture programs and projects, either as a budget line item or utilizing rollback taxes from the County's Present Use Value program.

Present Use Value Rollback Taxes

When a property comes out of the present-use value tax program, the owner is required by law to payback the deferred taxes and interest for the current and past three years. For the three-year period of 2009-2001, a total of \$78,912 in roll-back taxes was collected in Catawba County with an average of \$26,304 per year. This is a potential source of revenue that can supplement federal or state grants for conservation easements, programs or infrastructure needs.

Tax Incentives

Tax incentives are another tool available to support agriculture. These incentives can help farmers retain their land or provide a means for estate planning. Following are two of the most important tax



incentive programs available to farmers: agricultural conservation easements and the Present Use Value program.

Agricultural Conservation Easements

An agricultural conservation easement is a voluntary deed restriction placed on the land, based upon a legally enforceable agreement between a landowner and a qualified conservation organization or public agency. The agreement states that the landowner promises to keep the land in agricultural production and limits future development of the property. The conservation organization is given the right to enforce the covenants of the agreement and monitor the property. The agreement is beneficial to the landowner by protecting their land and leaving it in private ownership while providing federal and state income tax deductions/credits.

Present Use Value Program

The North Carolina General Assembly enacted legislation in 1973 enabling county tax department to consider the “value in use” for determining tax assessments. The intent of the law was to give relief to farm and forest tracts and to help keep property owners from selling the productive land due to higher taxes. Qualifications for the program are:

- 1) Ownership – land must have been owned for a full four years as of January 1 of the year being applied for to be in the program.
- 2) Land – land must be in production based upon the following acreage requirements:
 - 5 acres in horticultural production
 - 10 acres in agricultural production
 - 20 acres in forestry
- 3) Income – the qualifying tract of land must produce a yearly average of \$1,000 of gross income for the past three years
- 4) Sound management – all land must be under sound management practices. This can include a forestry management plan for forestland or a NRCS/SCS conservation plan for agricultural land

Farm Viability

In order to assist farmers with marketing of their product, there have been several initiatives which support local agriculture. Following is an overview of some of these efforts.

Agricultural Economic Development

Farmers typically have relied on their own means or support from local Cooperative Extensions and the North Carolina Department of Agriculture and Consumer Services to provide for business infrastructure needs. There is a trend growing now for local communities to provide assistance for farmers to diversify, market and plan for future growth of their business. These have included shared-use processing facilities (such as Pilot Mtn. Pride in Surry County), value-added commercial kitchens (like



Blue Ridge Ventures in Asheville, N.C) and incubator farms (like the Elma C. Lomax Incubator Farm in Cabarrus County). These facilities help farmers find outlets for their produce or assist beginning farmers. An example of an excellent agricultural development program is in Polk County, NC. Polk County established an agriculture economic development division and hired a director to oversee the program. He works with farmers, government officials and community members, finding ways to grow the local agriculture economy. Focused efforts in the County have included the establishment of community gardens, additional farmers markets and the refurbishing of an old elementary school to house the County's new agricultural economic development center.

Local Foods

The public is becoming increasingly more concerned about food safety and their own health. Recent fruit and vegetable recalls from national companies have heightened this awareness. Consumers want to reconnect with their community and local farmers have seen this as an opportunity to provide a ready-made market for their produce. With Merchant Distributors Incorporated (MDI) located in Hickory, this provides a great opportunity for the County's farmers to connect to a direct sales source. MDI actively enlists farmers to sell directly to them and will also assist farmers in choosing seed varieties to grow produce that will be readily bought by the company. In turn, MDI provides this produce to local stores, such as Lowes and IGA. By having locally grown food in the County, this will help farmers, consumers and the local government keep dollars in the County and improve the quality of life for our community.

Farmers Markets and Pick-your-own

Farmers markets have seen tremendous growth nationwide, in terms of number of markets and sales. Just in the last decade, the number of markets has doubled and sales have increased 10% per year.²⁵



Farmers markets and farm-stands allow consumers to have a closer relationship with the agricultural producers within their community. They have the opportunity to speak directly with the farmer and educate themselves about seasonality, nutrition, and the agricultural issues that affect the American lifestyle. Their produce is fresher and typically more nutritious. Often these markets and farm-stands feature organic produce, which decreases pesticide exposure. Furthermore, the local economy is supported by shortening the supply chain and allowing the public to buy produce direct from the farmer. The markets also serve as a destination on Saturdays, with most having some type of local programs about preparing or growing local foods. Similarly pick-your-own farms have grown in popularity. Families go to the farm to not only pick fresh fruit and vegetables, but also to learn about agriculture and the ways the produce has been raised.



Community Supported Agriculture

Community Supported Agriculture (CSA) is a marketing arrangement where the farmer sells shares for the year's production to consumers on a regular basis. The farmer benefits from having a reliable source of income and individuals who will share the season's risk while the consumer gets local fresh food, such as produce, meats and flowers. CSAs have become very popular across the country, with over 1,000 CSA arrangements currently operating, according to the USDA.

Farm to Institution

The Farm-to-School program is a nationwide program which connects local farms with area schools. The goal of the program is to improve health and nutrition of students by providing healthy meals in the schools, and support local farmers. According to USDA, the number of schools participating in farm-to-school programs jumped from 400 in 2004 to over 2,300 in 2011. Some of the most progressive schools in the country are actually converting parts of their own property into farmable acreage. Farmers are contracted to cultivate fresh produce on school grounds which is then picked fresh and brought directly to school kitchens for same-day preparation. These systems are at the cutting edge of fighting the childhood obesity epidemic.

Connections are also being made with other institutions such as hospitals, nursing homes, colleges, and corporate cafeterias.

Agri-tourism

Agri-tourism, sometimes also referred to as farm visits or agritainment, is another means to educate the public about the importance of farming in the community. Many activities fall into agri-tourism: cut your own trees, petting zoos, wine tastings, farm dinners, etc. The USDA 2007 Census of Agriculture noted that there 23,350 farms in the United States that have an agri-tourism component, which provided over \$566 million in additional farm income.²⁶ The North Carolina Department of Agriculture and Consumer Services has an Agritourism Office to support farmers interested in pursuing agri-tourism on their land. They can help promote the farm on their web site, provide information about liability and direct individuals to appropriate local officials about zoning and building regulations. One key concern of most farmers in opening up their farm to the public is liability if someone visiting gets hurt. To overcome this hurdle, the North Carolina General Assembly adopted limited liability limitations on farms that post mandated warning language on their farms. The State Office also provides unified signage which can help identify agri-tourism



farms. There are three agri-tourism farms in Catawba County that are identified on the State's agri-tourism website: Bird Brain Ostrich Ranch, Santa's Forest and Martin Farms.





END NOTES

- ¹ William R. Lutz, Jr., *A Glimpse of Jersey Cattle History in North Carolina and More* (Wallace Publishing, 2013): 10
- ² Dr. Michael L. Walden, William Neal Reynolds Distinguished Professor – Agricultural and Resource Economics, North Carolina State University, *Agriculture and Agribusinesses in Catawba County*, 2008
<http://www.cals.ncsu.edu/cfprod/apps/calswebsite/documents/county/catawba.pdf> (March 20, 2013)
- ³ Catawba County; <http://www.catawbacountync.gov> (March 26, 2013)
- ⁴ United States Department of Agriculture Soil Conservation Service, *Soil Survey of Catawba County, North Carolina* (USDA, 1975): 1
- ⁵ William Coyne and Elizabeth Ouzts, *Losing Our Natural Heritage: North Carolina's Disappearing Open Space* (NCPIRG Education Fund, 2003)
- ⁶ RENCi at UNC Charlotte; <http://gis.uncc.edu/URBAN> (March 26, 2013)
- ⁷ Gary R. Freeze, *The Catawbans: Crafters of a North Carolina County* (Catawba County Historical Association, 1995): 75
- ⁸ Lutz, 2013
- ⁹ W.R. Lutz, Jr., *A Century of Achievement: 1904-2004; Startown School Lights the Way in Progressive Farm Life Education* (Startown Elementary School, 2006)
- ¹⁰ Ahearn, M. and D. Newton, *Beginning Farmers and Ranchers* (U.S. Department of Agriculture, Economic Research Service, 2009)
- ¹¹ Dr. Michael Walden. NCSU, Department of Agricultural and Resource Economics
- ¹² James Jeuck and Robert Bardon, *2010 Income of NC Timber Harvested and Delivered to Mills* (NCSU Forestry Extension, 2009)
- ¹³ Jason Cooper, et al. *North Carolina's Timber Industry—An Assessment of Timber Product Output and Use..* Resource Bulletin SRS-178. (USDA Forest Service, Southern Research Station, 2009)
- ¹⁴ Jeuck and Bardon, 2010
- ¹⁵ Jeuck and Bardon. 2010
- ¹⁶ Eastern Cooperative Christian Ministry, Catawba County Food Policy Council; <http://www.ecccm.org/food-policy-council> (March 25, 2013)
- ¹⁷ Catawba County HOPE; <http://catawbahope.wordpress.com> (March 25, 2013)
- ¹⁸ The Conservation Fund, *Resource Guide for Limited-Resource Farmers* (The Conservation Fund, 2012)
- ¹⁹ United States Department of Agriculture, Agricultural Marketing Service;
<http://www.ams.usda.gov/AMSv1.0/ams.fetchTemplateData.do?template=TemplateA&navID=AMSGrants&leftNav=AMSGrants&page=AMSGrants&acct=AMSPW> (March 26, 2013)
- ²⁰ United States Department of Agriculture, Farm Service Agency;
<http://www.fsa.usda.gov/FSA/webapp?area=fsahome&subject=landing&topic=landing> (March 26, 2013)
- ²¹ RAFI-USA; <http://rafiusa.org/aboutus> (March 26, 2013)
- ²² Carolina Farm Credit Service; <http://www.carolinafarmcredit.com/cfc3/index.asp> (March 26, 2013)
- ²³ Southern SARE; <http://www.southernsare.org/About-Us/Your-Southern-Region> (March 26, 2013)
- ²⁴ NC Department of Agriculture and Consumer Services; <http://www.ncagr.gov/markets/NCgradesvc> (March 26, 2013)
- ²⁵ American Farmland Trust, 2007
- ²⁶ Agriculture Marketing Research Center;
http://www.agmrc.org/media/cms/Agritourism_Thessen_A812A9AE31310.pdf (April 1, 2013)

